Spidell and Associates
2403 Spaulding, Boise, Idaho 83705
(208) 336-4862

February 28, 2007

William Rogers
Permit Coordinator
Idaho Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706

RE: Re Submittal of Bear River Zeolite Permit Modification Application

Dear Mr. Rogers,

Please find attached two copies of the re submittal of Bear River Zeolite Permit Modification Application.

The Application is being re submitted at the request of Jonathan Pettit, to remove the Allis Chalmers tube mill from the Emission Estimate, Process Flow Diagram and Application Tables. Over all the PM Emissions decreased approximately 0.05 lb/hr or 0.25 ton per year.

Mr. Kevin Schilling was contacted, as he has approved the Model Protocol. Mr. Pettit reported that Mr. Schilling said that the emissions from the tube mill did not have to be removed from the model analysis, because the emission estimate used for the Model reflects the worst case conditions when the tube mill is included. Copies of the same Model Data Files that were submitted with the first Application are again included in the Application as Appendix D.

The Application Fee and the Model Protocol have been previously submitted. Should you need further information or have any questions please contact John Lawrence at (406) -827-3523 or myself at 336-5862.

Sincerely,

Ron Spidell

cc: John Lawrence, Bear River Zeolite

APPLICATION TO MODIFY
PERMIT TO CONSTUCT NUMBER P-040310
Facility ID No. 041-00010

Revision of Application Submitted on February 15, 2007

Bear River Zeolite
Preston, Idaho

Prepared For: John C. Lawrence
President
Bear River Zeolite Company
Box 643
Thompson Falls, MT 59873
(406) 827-3523

Prepared By: Spidell and Associates
2403 Spaulding
Boise, Idaho 83705
Phone (208) 336-4862

RECEIVED

FEB 28 2007

Department of Environmental Quality
State Air Program

02/28/2007

Resubmitted February 28, 2007

TABLE OF CONTENTS

1. PURPOSE

This application revises the application submitted on February 15, 2007 to modify Bear River Zeolite Company's Air Quality Permit to Construct Number 777-00278 and to satisfy the requirements of IDAPA 58.01.01.200. The only revision involves the removal of the Allis Chalmers tube mill from the fine products building (building #4). Removing the Allis Chalmers tube mill and the material transfer associated with it reduces the fugitive emissions from the fine products building. The table below summarizes the emissions change.

Fine Products Building (Bldg #4) Revised Emission Estimates	PM		PM10	
	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Previous Total Uncontrolled	9.916	43.432	3.784	16.574
Previous Total 70% Control	2.975	13.030	1.135	4.972
minus Tube Mill and	0.394	1.726	0.150	0.657
1 Material Transfer	0.037	0.162	0.014	0.061
Total Emission Reductions	0.431	1.888	0.164	0.718
New Total - Uncontrolled	**9.485**	**41.544**	**3.620**	**15.856**
New Total - 70% Control	**2.846**	**12.463**	**1.086**	**4.757**

Because the controlled PM-10 emissions estimate from the fine products building (and facility-wide) is only reduced by 0.049 lb/hr and the resulting change to the ambient impact would be insignificant, the air dispersion modeling analysis was left unchanged from the previous application.

As with the earlier application, the installation of a 15-ton per hour roller mill controlled by a cyclone vented to a baghouse and using two 0.75 MMBtu dryers instead of the single 1.0 MMBtu dryer are the reasons for the permit modifications. The earlier application indicated that the generators would be kept on site to be used for emergency backup during temporary power failures. The generators will be removed and the facility will rely entirely on line power.

2. FACILITY DESCRIPTION

Bear River Zeolite Company is located approximately six miles northwest of Preston, Idaho in Freemont County. A location map is included as Figure 1.

The facility employs two crushers, three grinding mills and eleven screening plants to produce various size fractions of zeolite extracted from a nearby pit. Potential maximum throughput for the facility is 20 tons per hour or 175,200 tons per year. Material is transported through the processing plant using conveyor belts, bucket elevators and augers. Two 0.75 MMBtu propane fired rotary drum dryers are used to dry the zeolite. A scaled plan map is included as Figure 2 and a flow diagram is included as Figure 3.

3. FACILITY / AREA CLASSIFICATION

Bear River Zeolite is a synthetic minor because the air pollutants regulated by Title V program are limited to less than 100 tons per year. The facility is located in Franklin County, which is designated as unclassifiable for all criteria air pollutants.

4. EQUIPMENT LISTING

4.1 Primary Crushers

Manufacturer/Type:	Portec Inc., Pioneer Division - Jaw Type
Date of Manufacture:	1973
Maximum Capacity:	300 tons/hr

Manufacturer/Type:	Nordberg Mfg. Co. - Cone Type
Date of Manufacture:	1958
Maximum Capacity:	100 tons/hr

4.2 Grinding Mills

Manufacturer/Type:	Jeffries - Hammer Mill
Date of Manufacture:	????
Maximum Capacity:	50 tons/hr

Manufacturer/Type:	Philadelphia - Hammer Mill
Date of Manufacture:	????
Maximum Capacity:	10 tons/hr

Manufacturer/Type:	Alston Power - Roller Mill
Date of Manufacture:	1979
Maximum Capacity:	15 tons/hr

4.3 Zeolite Dryers (2)

Manufacturer/Type:	Shop Made - 5' × 30' Drum
Rated Heat Input (Btu):	750,000 each
Fuel Type:	Propane
Fuel Usage (gal/hr)	8.2 each
Control Device	#2 Baghouse
Stack Diameter (ft)	1.31
Stack Height (ft)	8.0
Exhaust Flow (acfm)	2,860
Exhaust Temperature (°F)	160

4.4 Screen Plants

Location	Manufacturer	Size
Building #1	Kohlberg 254T	5 ft × 12 ft
Building #2	Midwest 154T	4 ft × 8 ft
	Sweeco	4 ft diam
	Sweeco	4 ft diam
Building #3	Midwest Multi Vibe	5 ft × 7 ft
	Midwest Multi Vibe	5 ft × 7 ft
Building #4	Derrick	3.5 ft × 10.5 ft
	Derrick	3.5 ft × 10.5 ft
	Sweeco	18 in diam
	Sweeco	4 ft diam
	Sweeco	30 in diam

5. EMISSION INVENTORY

5.1 Crushed Stone Processing Emissions

Potential emission estimates are based on a maximum facility throughput of 20 tons per hour or 175,200 tons per year.

Emission estimates to determine the potential to emit from crushing, screening and enclosed material transfer operations were calculated using uncontrolled emission factors from AP-42, Table 11.19.2-2. When only one emission factor was available for a pollutant, the other factor was calculated using TSP = PM_{10} × 2.1 and TSP = PM × 0.8. These conversion factors are referenced in AP-42 Table 11.19.2-2 Footnote c and in the Idaho DEQ spreadsheet for estimating emissions from rock crushing operations. These emission factors are summarized in the table below.

Source	SCC	Uncontrolled PM (lb/ton)	Uncontrolled PM10 (lb/ton)
Screening	3-05-020-02-03	3.94E-02	1.50E-02
Primary Crushing	3-05-020-01	7.00E-04	2.67E-04
Secondary Crushing	3-05-020-02	6.30E-03	2.40E-03
Tertiary Crushing	3-05-020-03	6.30E-03	2.40E-03
Fines Crushing	3-05-020-05	3.94E-02	1.50E-02
Fines Screening	3-05-020-21	1.86E-01	7.10E-02
Transfer Point	3-05-020-06	3.70E-03	1.40E-03

A control efficiency of 70% was applied to emissions enclosed in a building.

Emission estimates for the material transfers not enclosed in a building were calculated using the "drop point" equation in AP-42 Section 13.2.2. The emission estimates for the 18 material transfers are calculated below.

$$EF\left(\frac{lb}{ton}\right) = (k \times 0.0032)\frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} = (0.35 \times 0.0032)\frac{\left(\frac{10}{5}\right)^{1.3}}{\left(\frac{2.5}{2}\right)^{1.4}} = 2.02E-03 \text{ lb } PM_{10} / \text{ton}$$

Material Trasfer Emissions $= (2.02E-03 \text{ lb } PM_{10} / \text{ton})\ (20 \text{ tons/hr})(18 \text{ transfers}) = 0.7272 \text{ lb } PM_{10} / \text{hr}$

Where : U = Mean wind speed of 10 miles per hour

M = Moisture content of 2.5% and

k = Particle size multiplier of 0.35 for PM_{10}, 0.74 for TSP and TSP / 0.8 (0.925) for PM

The moisture content of 2.5% used in the drop point equation is low for Zeolite, which absorbs moisture readily and must be dried to less than 1% moisture for fine screening. The dried Zeolite will gain up to 6% moisture in less than 24 hours from atmospheric humidity. The raw material likely has a moisture content

considerably higher than 6% making the emission estimates used for the transfer points highly conservative. The mean wind speed of 10 miles per hour used in the equation closely reflects the average wind speed of 4.485 meters per second or 10.03 miles per hour recorded at the Pocatello meteorological weather station from 1987 to 1991.

5.2 Baghouse Controlled Emissions

The facility has six baghouses to control emissions.

Sources	Baghouse	Previous Application
Building 1 / Cone Crusher and Screen	Baghouse #1	Cyclone
Two 0.75 MMBtu Dryers (Replaces 1.0 MMBtu Dryer)	Baghouse #2	Baghouse #1
Building 2 / Philadelphia Hammer Mill and Screens	Baghouse #3	Baghouse #3
Building 3 / Jeffries Hammer Mill / Coarse Products Bldg	Baghouse #4	Baghouse # 2
Building 4 / Fine Products Building	Baghouse #5	-----
Alston Power Roller Mill	Baghouse #6	-----

Particulate emissions from the six baghouses were calculated from the grain loading emission limit of 0.022 gr/dscf in 40 CFR 60.672. PM-10 emissions were estimated from the particle size distribution table in AP-42 Appendix B.2 Category 4 which shows 85% of the emissions are under 10 microns. The table below summarizes the baghouse particulate matter emissions. An example calculation for Baghouse #1 is also included.

Baghouse ID	Description	Exhaust Flow (dscf/m)	PM (lb/hr)	PM (tons/yr)	PM10 (lb/hr)	PM10 (tons/yr)
BGH1	Primary Crushing Circuit	4,997.3	0.942	4.128	0.801	3.508
BGH2	0.75 MMBtu Dryers	2,345.7	0.442	1.937	0.376	1.647
BGH3	Philadelphia Hammer Mill	3,186.3	0.601	2.632	0.511	2.237
BGH4	Jeffries Hammer Mill	1,983.3	0.374	1.638	0.318	1.392
BGH5	Fine Products	2,829.7	0.534	2.337	0.454	1.987
BGH6	Alston Hammer Mill	3,294.0	0.621	2.721	0.528	2.313

$$\text{BGH1 PM Emissions (lb/hr)} = \frac{\left(4{,}997.3\ \frac{\text{dscf}}{\text{min}}\right)\left(0.022\ \frac{\text{grains}}{\text{dscf}}\right)\left(60\ \frac{\text{min}}{\text{hr}}\right)}{7{,}000\ \frac{\text{grains}}{\text{lb}}} = \mathbf{0.942\ lb\ PM/hr}$$

$$\text{BGH1 PM} - 10\ \text{Emissions (lb/hr)} = (0.942\ \text{lb PM/hr})(0.85) = \mathbf{0.801\ lb\ PM - 10/hr}$$

5.3 Process Fugitive Emissions

A control efficiency of 70% was applied to fugitive emissions generated from process operations inside buildings. This control efficiency was obtained from "Fugitive Dust Control Technology" Table 2.1.3-3. Potential emissions from the crushed stone processing operations enclosed in buildings are summarized in the table below.

Building Enclosed Process Emissions

	Uncontrolled Emissions				Controlled Emissions			
	PM		PM10		PM		PM10	
Building	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Building 1	5.120	4.485	1.947	1.705	1.536	1.346	0.584	0.512
Building 2	1.467	6.425	0.558	2.444	0.440	1.928	0.167	0.733
Building 3	5.180	9.075	1.970	3.451	1.554	2.723	0.591	1.035
Building 4	9.485	41.544	3.620	15.856	2.846	12.463	1.086	4.757
Total	21.252	61.530	8.095	23.457	6.376	18.459	2.428	7.037

Process emissions from the jaw crusher and the material transfers not inside a building were calculated as uncontrolled emissions.

Unenclosed Process Emissions

	PM		PM10	
Source	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Jaw Crusher	0.210	0.061	0.080	0.023
Outside Transfers (18)	1.919	8.404	0.727	3.185

5.4 Zeolite Dryer Emission Estimates:

The facility employs two 0.75 MMBtu propane fired drum dryers to remove moisture from the Zeolite. Exhaust from the dryers is vented through baghouse #2. Dryer emission estimates were calculated using emission factors in AP-42 Table 1.5-1 (Liquefied Petroleum Gas Combustion) and Tables 1.4-2, 1.4-3 and 1.4-4 (Natural Gas Combustion). The AP-42 emission factors were converted from lb/10^6 scf for natural gas and lb/10^3 gal for propane to lb/MMBtu using higher heating values of 1,020 MMBtu/10^6 scf of natural gas and 91.5 MMBtu/10^3 gal of propane. Examples of converting the natural gas and propane emission factors to lb/MMBtu are shown below.

$$\frac{0.0005\ \text{lb lead}/10^6\ \text{scf natural gas}}{1{,}020\ \text{MMBtu}/10^6\ \text{scf natural gas}} = 4.90\text{E}-07\ \text{lb lead/MMBtu}$$

$$\frac{14\ \text{lb NO}_2/10^3\ \text{gal propane}}{91.5\ \text{MMBtu}/10^3\ \text{gal propane}} = 1.53\text{E}-01\ \text{lb NO}_2/\text{MMBtu}$$

Emissions estimates were calculated by multiplying the emission factor in lb/MMBtu by the dryer heat input in MMBtu/hr as shown below for NO_2 emissions from both 0.75 MMBtu dryers.

$$\frac{1.53E-01\ \text{lb}\ NO_2}{\text{MMBtu}} \times \frac{0.75\ \text{MMBtu}}{\text{hour}} \times 2 = 2.295E-01\ \text{lb}\ NO_2/\text{hour}$$

Potential emissions for the criteria air pollutants from the propane dryers are shown in the table below.

Zeolite Dryer Emissions

Criteria Pollutants	Emission Factors (lb/MMBtu)	Potential Emissions 0.75 MMBtu Dryers (2) (lb/hr)	(T/yr)
PM	0.022 gr/dscf	0.442	1.937
PM-10	85% of PM	0.376	1.647
SO2	2.19E-04	3.285E-04	1.44E-03
NO2	1.53E-01	2.295E-01	1.005
CO	2.08E-02	3.120E-02	0.137
VOC	5.46E-03	8.190E-03	0.036
Lead	4.90E-07	7.350E-07	3.22E-06

PM and PM-10 emissions in the table were calculated from the grain loading emission limit and particle size distribution for baghouse 2.

5.5 Mine Site Drilling, Blasting and Rock Truck Loading Emission Estimates

Fugitive emissions associated with the activities at the mine site include drilling, blasting, loading and transporting the raw material to the processing plant. Currently, blasting is not required to extract the zeolite but may be needed when deeper ore is accessed. The zeolite is loaded into 20-ton capacity rock trucks using a 1.5 cubic yard loader. The rock trucks transport the zeolite to the processing plant on a ¾ mile long gravel haul road.

Potential emissions were based on a maximum plant capacity of 20 tons per hour or 175,200 tons per year. The TSP emission factors were converted to PM and PM_{10} emission factors using $PM = \frac{TSP}{0.8}$ and $PM_{10} = \frac{TSP}{2.1}$

The emission factors for drilling and blasting are for a granite quarry from Table 2.1.4 of "Fugitive Dust Control Technology", 1983. Estimated emissions for the drilling and blasting operations are summarized in the table below.

Drilling and Blasting Emissions

Emission Source	Emission Factors TSP (lb/ton mined)	PM (lb/ton mined)	PM10 (lb/ton mined)	Potential Emissions PM (lb/hr)	(tons/yr)	PM-10 (lb/hr)	(tons/yr)
Drilling	0.0080	0.0100	0.0038	0.2000	0.8760	0.0762	0.3337
Blasting	0.1600	0.2000	0.0762	4.0000	17.5200	1.5238	6.6743
			Total	**4.2000**	**18.3960**	**1.6000**	**7.0080**

Estimated emissions for the rock truck loading operations were calculated using the "drop point" equation in AP-42 13.2.4 with the same factors used to calculate emissions for the transfer points. Estimated emissions for the rock truck loading operation are shown in table 8.

Source	Emission Factors PM lb/ton	PM10 lb/ton	Load Rate (tons/hr)	Potential Emissions PM lb/hr	PM tons/yr	PM10 lb/hr	PM10 tons/yr
Rock Truck Loading	5.33E-03	2.02E-03	20	1.07E-01	4.67E-01	4.04E-02	1.77E-01

5.6 Vehicle Traffic Emission Estimates

Emission estimates for vehicle traffic on the haul and plant roads were calculated using the equation in AP-42 13.2.2 and are summarized below.

5.7 Facility-wide Emission Summary

The table below summarizes the facility-wide potential emissions for criteria air pollutants.

Facility-Wide PM and PM-10 Emissions

SOURCE	PM		PM_{10}	
	lb/hr	tons/yr	lb/hr	tons/yr
Baghouse #1	0.942	4.128	0.801	3.508
Baghouse #2 (Dryers)	0.442	1.937	0.376	1.647
Baghouse #3	0.601	2.632	0.511	2.237
Baghouse #4	0.374	1.638	0.318	1.392
Baghouse #5	0.534	2.337	0.454	1.987
Baghouse #6	0.621	2.721	0.528	2.313
Process Building 1	1.536	1.346	0.584	0.512
Process Building 2	0.440	1.928	0.167	0.733
Process Building 3	1.554	2.723	0.591	1.035
Process Building 4	2.846	12.463	1.086	4.757
Jaw Crusher	0.210	0.061	0.080	0.023
Outside Material Transfers	1.919	8.404	0.727	3.185
Mine Site Drilling	0.2000	0.8760	0.0762	0.3337
Mine Site Blasting	4.0000	17.5200	1.5238	6.6743
Rock Truck Loading	0.107	0.467	0.040	0.177
Vehicle Traffic	11.002	48.187	3.961	17.347
Total Emissions	**16.219**	**109.367**	**7.823**	**47.862**

Dryer CO, SO2, NOx, Lead Emissions

CO		SO2		NOx		Pb	
lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
0.0312	0.137	3.29E-04	1.44E-03	0.23	1.007	7.35E-07	3.22E-06

Toxic air pollutants from the dryers did not exceeded the emission screening levels of IDAPA 58.01.01.585 or 586.

Spreadsheets detailing the emission factors, emission rates and equipment operating parameters are included in Appendix A. The state application forms are included in Appendix B.

6.0 Ambient Air Impact Assessment

The ambient impact assessment was performed using AERMOD. The significant impact analysis for criteria air pollutants showed that PM-10 required a full impact analysis. Results of the NAAQS analysis for PM-10 and lead are summarized in the table below.

NAAQS Analysis

Pollutant	Averaging Period	Ambient Impact ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Total Ambient Concentration ($\mu g/m^3$)	Regulatory Limit ($\mu g/m^3$)	Percent of NAAQS
PM-10	24-hour	49.53464	73	122.53464	150	81.69
	Annual	4.43361	26	30.43361	50	60.87
Lead	Quarterly	1.35E-05	0.03	0.0300	1.5	2.00

Appendix C contains details of the ambient impact modeling analysis.

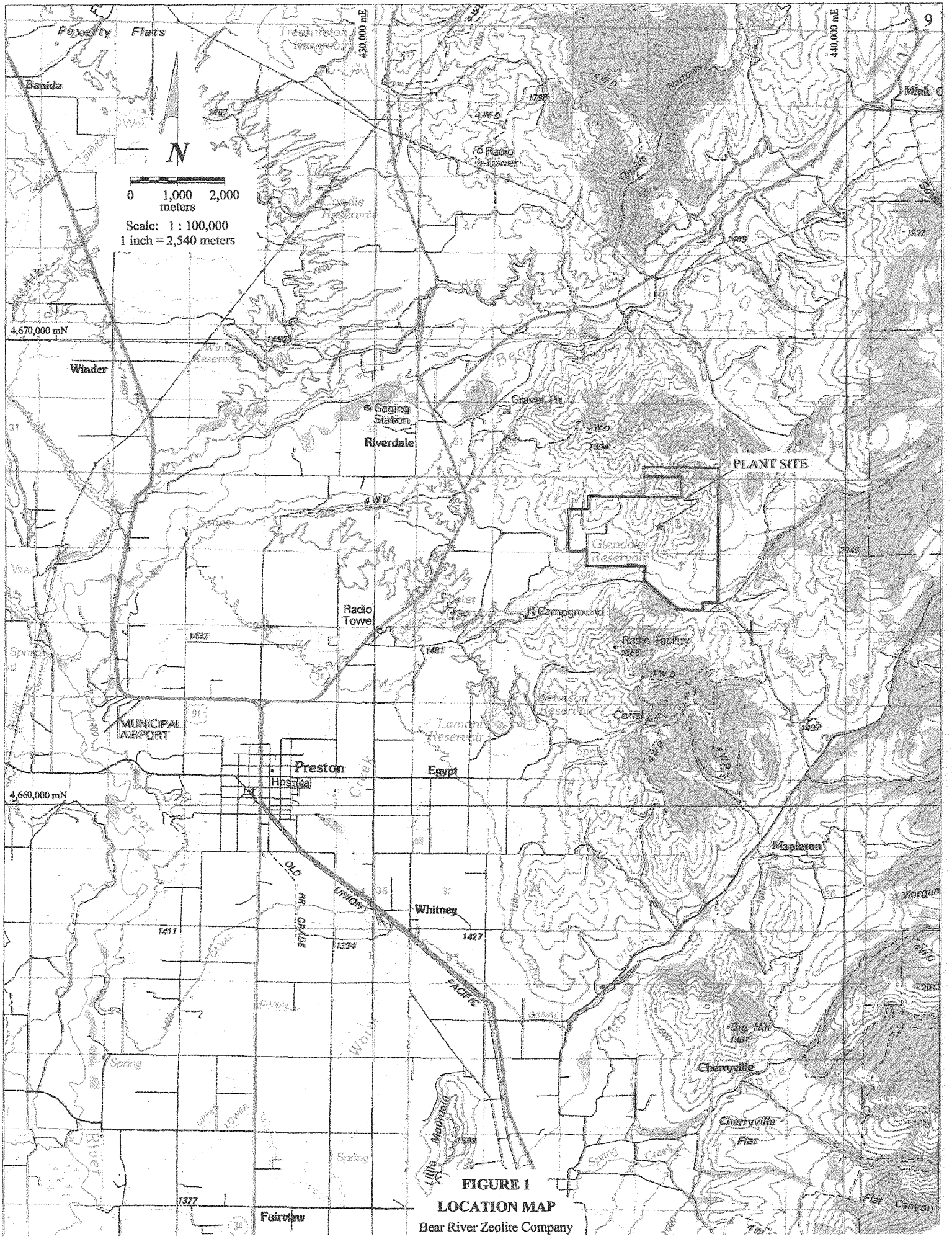


FIGURE 1
LOCATION MAP
Bear River Zeolite Company

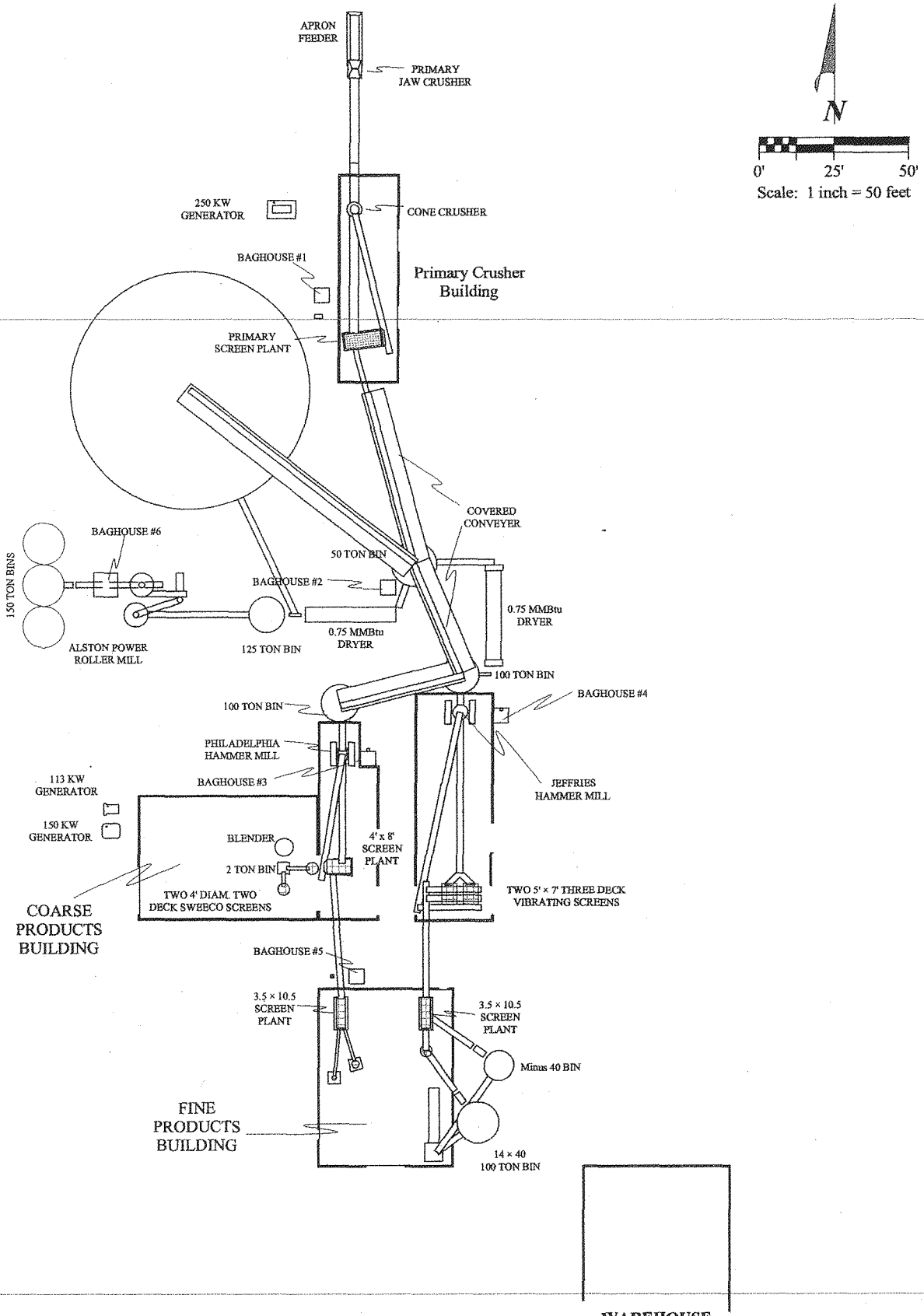


FIGURE 2

SCALED PLAN VIEW
ZEOLITE PROCESS FACILITY

Bear River Zeolite Company
Preston, Idaho

Revised February 2007

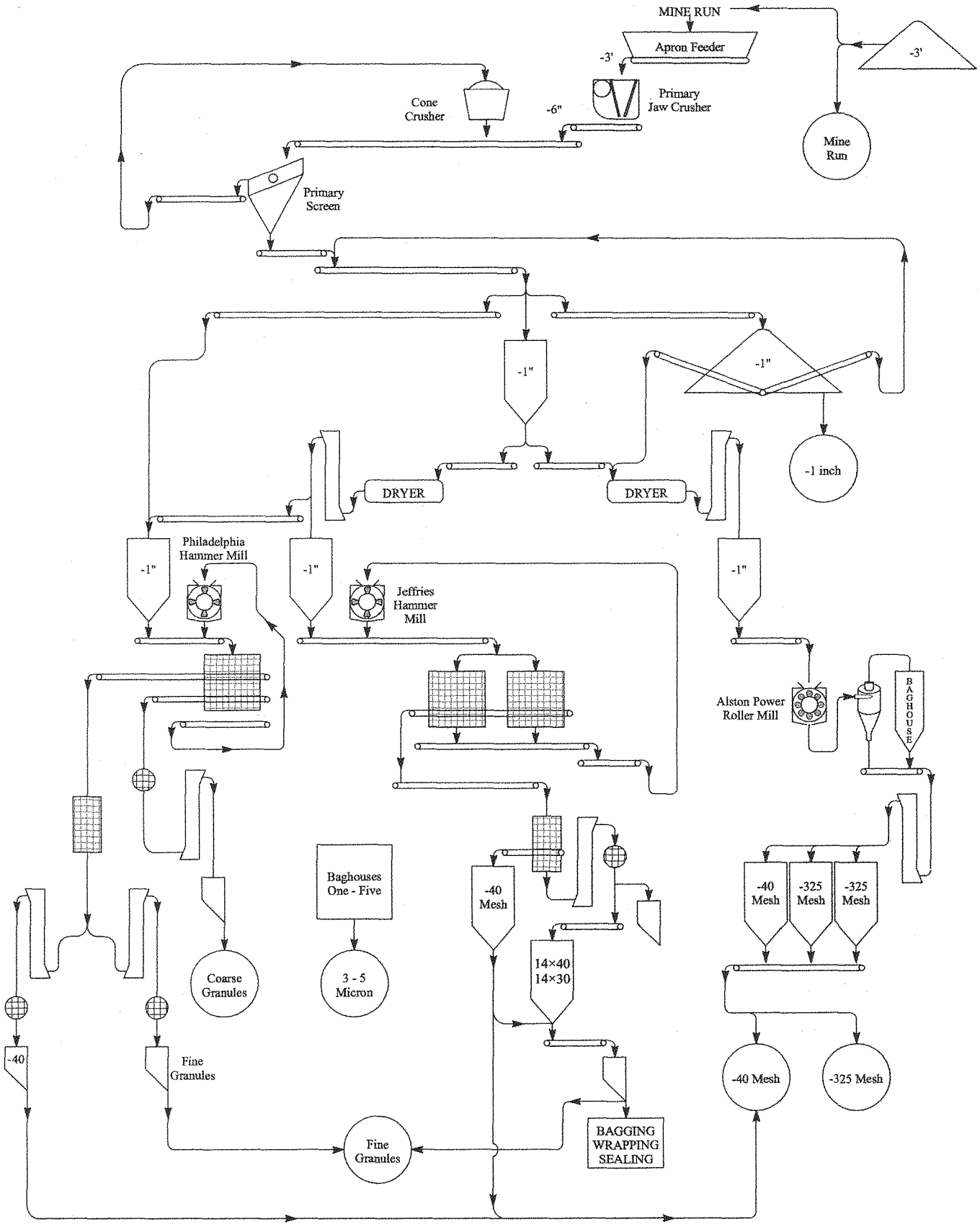


FIGURE 3

PROCESS FLOW DIAGRAM
Bear River Zeolite Company
Preston, Idaho

APPENDIX A

Emission Factors and Estimates

Bear River Zeolite Company, Inc.

Emission Factors - Crushed Stone Processing Operations
Bear River Zeolite Company

Source	SCC	Uncontrolled PM (lb/ton)	Uncontrolled PM10 (lb/ton)
Screening	3-05-020-02-03	3.94E-02	1.50E-02
Primary Crushing	3-05-020-01	7.00E-04	2.67E-04
Secondary Crushing	3-05-020-02	6.30E-03	2.40E-03
Tertiary Crushing	3-05-020-03	6.30E-03	2.40E-03
Fines Crushing	3-05-020-05	3.94E-02	1.50E-02
Fines Screening	3-05-020-21	1.86E-01	7.10E-02
Transfer Point	3-05-020-06	3.70E-03	1.40E-03

Emission Factors From AP42 Table 11.19.2-2.

When Only One Pollutant Was Listed, the Following Conversion Factors Were Used:
TSP = PM10 × 2.1 and TSP = PM × 0.8

Drop Point Emission Factor from Equation 1, AP42 13.2.4:

Mean Wind Speed (U) = 10 mph

Moisture Content (M) = 2.5%

Particle Size Multiplier (k) =

PM10 = 0.35

TSP = 0.74

PM = TSP/0.8 = 0.925

$$EF\left(\frac{lb}{ton}\right) = (k \times 0.0032)\frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}$$

Emission Factors - Propane and Natural Gas Combustion
Bear River Zeolite Company

	Emission Factors N. G./Propane	Potential Emissions 0.75 MMBtu Dryers (2)		
Criteria Pollutants	(lb/MMBtu)	(lb/hr)	(T/yr)	
PM-10	4.37E-03	6.555E-03	0.029	
SO2	2.19E-04	3.285E-04	1.44E-03	
NO2	1.53E-01	2.295E-01	1.005	
CO	2.08E-02	3.120E-02	0.137	
VOC	5.46E-03	8.190E-03	0.036	
Lead	4.90E-07	7.350E-07	3.22E-06	
Non-Criteria Pollutants with a Significant Threshold				
PM	6.53E-03	9.80E-03	0.043	Emission Screening Level (EL) (lb/hr)
Beryllium	1.18E-08	1.77E-08	7.75E-08	
Mercury	2.55E-07	3.83E-07	1.68E-06	
Non-Carcinogenic TAPs				
Barium	4.31E-06	6.47E-06	2.83E-05	0.033
Chromium	1.37E-06	2.06E-06	9.00E-06	0.0333
Cobalt	8.24E-08	1.24E-07	5.41E-07	0.007
Copper	8.33E-07	1.25E-06	5.47E-06	0.013
Dichlorobenzene	1.18E-06	1.77E-06	7.75E-06	20
Fluorene	2.75E-09	4.13E-09	1.81E-08	0.133
Hexane	1.76E-03	2.64E-03	1.16E-02	12
Manganese	3.73E-07	5.60E-07	2.45E-06	0.067
Mercury	2.55E-07	3.83E-07	1.68E-06	0.003
Molybdenum	1.08E-06	1.62E-06	7.10E-06	0.33
Napthalene	5.98E-07	8.97E-07	3.93E-06	3.33
Pentane	2.55E-03	3.83E-03	1.68E-02	118
Selenium	2.35E-08	3.53E-08	1.54E-07	0.013
Toluene	3.33E-06	5.00E-06	2.19E-05	25
Vanadium	2.25E-06	3.38E-06	1.48E-05	0.025
Zinc	2.84E-05	4.26E-05	1.87E-04	0.667
Carcinogenic TAPs				
Arsenic	1.97E-07	2.96E-07	1.29E-06	1.50E-06
Benzene	2.06E-06	3.09E-06	1.35E-05	8.00E-04
Benzo(a)pyrene	1.18E-08	1.77E-08	7.75E-08	2.00E-06
Beryllium	1.18E-09	1.77E-09	7.75E-09	2.80E-05
Cadmium	1.08E-06	1.62E-06	7.10E-06	3.70E-06
Formaldehyde	7.35E-05	1.10E-04	4.83E-04	5.10E-04
3-Methylchloranthrene	1.76E-09	2.64E-09	1.16E-08	2.50E-06
Nickel	2.06E-06	3.09E-06	1.35E-05	2.70E-05
PAH's	1.76E-09	2.64E-09	1.16E-08	2.00E-06
Benzo(a)anthracene	<1.76E-09			N/A
Benzo(b)fluoranthene	<1.76E-09			N/A
Benzo(k)fluoranthene	<1.76E-09			N/A
Chrysene	<1.76E-09			N/A
Dibenzo(a,h)anthracene	<1.76E-09			N/A
Indeno(1,2,3-cd)pyrene	<1.76E-09			N/A
Benzo(a)pyrene	<1.76E-09			N/A

Stack Emission Estimates
Bear River Zeolite
Preston, Idaho

Baghouse Emissions

Baghouse ID	Description	Exhaust Flow (dscf/m)	Emissions PM (lb/hr)	PM (tons/yr)	PM10 (lb/hr)	PM10 (tons/yr)
BGH1	Primary Crushing Circuit	4,997.3	0.942	4.128	0.801	3.508
BGH2	0.75 MMBtu Dryers	2,345.7	0.442	1.937	0.376	1.647
BGH3	Philadelphia Hammer Mill	3,186.3	0.601	2.632	0.511	2.237
BGH4	Jeffries *Hammer Mill*	1,983.3	0.374	1.638	0.318	1.392
BGH5	Fine Products	2,829.7	0.534	2.337	0.454	1.987
BGH6	Alston Hammer Mill	3,294.0	0.621	2.721	0.528	2.313

Zeolite Dryer Emissions

Criteria Pollutants	Emission Factors (lb/MMBtu)	Potential Emissions 0.75 MMBtu Dryers (2) (lb/hr)	(T/yr)
PM	0.022 gr/dscf	0.442	1.937
PM-10	85% of PM	0.376	1.647
SO2	2.19E-04	3.285E-04	1.44E-03
NO2	1.53E-01	2.295E-01	1.005
CO	2.08E-02	3.120E-02	0.137
VOC	5.46E-03	8.190E-03	0.036
Lead	4.90E-07	7.350E-07	3.22E-06

Process Emission Estimates
Bear River Zeolite
Preston, Idaho

Building 1 Primary Crushing and Screening								
	Production Rate		Emission Factors		PM		PM10	
Source	Maximum (lb/hr)	Annual tons/yr	PM (lb/ton)	PM10 (lb/ton)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Cone Crusher	100	175,200	7.00E-04	2.67E-04	7.00E-02	6.13E-02	2.67E-02	2.34E-02
Primary Screen	100	175,200	3.94E-02	1.50E-02	3.94	3.45	1.50	1.31
3 Transfers	100	175,200	3.70E-03	1.40E-03	1.11	0.97	0.42	0.37
Total Uncontroled					5.120	4.485	1.947	1.705
Total 70% Control					1.536	1.346	0.584	0.512

Building 2 Coarse Products Building								
	Production Rate		Emission Factors		PM		PM10	
Source	Maximum (lb/hr)	Annual tons/yr	PM (lb/ton)	PM10 (lb/ton)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Philadelphia Hammer Mill	10	87,600	6.30E-03	2.40E-03	6.30E-02	0.276	2.40E-02	0.105
4 × 8 Screen Plant	10	87,600	3.94E-02	1.50E-02	0.394	1.726	0.150	0.657
4' Sweeco Screen	10	87,600	3.94E-02	1.50E-02	0.394	1.726	0.150	0.657
4' Sweeco Screen	10	87,600	3.94E-02	1.50E-02	0.394	1.726	0.150	0.657
6 Transfers	10	87,600	3.70E-03	1.40E-03	0.222	0.972	0.084	0.368
Total Uncontroled					1.467	6.425	0.558	2.444
Total 70% Control					0.440	1.928	0.167	0.733

Building 3 Jeffries Hammer Mill								
	Production Rate		Emission Factors		PM		PM10	
Source	Maximum (lb/hr)	Annual tons/yr	PM (lb/ton)	PM10 (lb/ton)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Jeffries Hammer Mill	50	175,200	6.30E-03	2.40E-03	0.315	0.552	0.120	0.210
5 × 7 Screen Plant	50	175,200	3.94E-02	1.50E-02	1.970	3.451	0.750	1.314
5 × 7 Screen Plant	50	175,200	3.94E-02	1.50E-02	1.970	3.451	0.750	1.314
5 Transfers	50	175,200	3.70E-03	1.40E-03	0.925	1.621	0.350	0.613
Total Uncontroled					5.180	9.075	1.970	3.451
Total 70% Control					1.554	2.723	0.591	1.035

Building 4 Fine Products Building								
	Production Rate		Emission Factors		PM		PM10	
Source	Maximum (lb/hr)	Annual tons/yr	PM (lb/ton)	PM10 (lb/ton)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
3.5 × 10.5 Screen Plant	10	87,600	1.86E-01	7.10E-02	1.860	8.147	0.710	3.110
3.5 × 10.5 Screen Plant	10	87,600	1.86E-01	7.10E-02	1.860	8.147	0.710	3.110
18" Sweeco Screen	10	87,600	1.86E-01	7.10E-02	1.860	8.147	0.710	3.110
4' Sweeco Screen	10	87,600	1.86E-01	7.10E-02	1.860	8.147	0.710	3.110
30" Sweeco Screen	10	87,600	1.86E-01	7.10E-02	1.860	8.147	0.710	3.110
5 Transfers	10	87,600	3.70E-03	1.40E-03	0.185	0.810	0.070	0.307
Total Uncontroled					9.485	41.544	3.620	15.856
Total 70% Control					2.846	12.463	1.086	4.757

Unenclosed Process Emissions

	Production Rate		Emission Factors		PM		PM10	
Source	Maximum (lb/hr)	Annual tons/yr	PM (lb/ton)	PM10 (lb/ton)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Jaw Crusher	300	175,200	7.00E-04	2.67E-04	0.210	0.061	0.080	0.023
Outside Transfers (18)	20	175,200	5.33E-03	2.02E-03	1.919	8.404	0.727	3.185

Drilling and Blasting Emissions

	Emission Factors			Potential Emissions			
Emission Source	TSP (lb/ton mined)	PM (lb/ton mined)	PM10 (lb/ton mined)	PM (lb/hr)	(tons/yr)	PM-10 (lb/hr)	(tons/yr)
Drilling	0.0080	0.0100	0.0038	0.2000	0.8760	0.0762	0.3337
Blasting	0.1600	0.2000	0.0762	4.0000	17.5200	1.5238	6.6743
			Total	4.2000	18.3960	1.6000	7.0080

Fugitive Emissions From Vehicle Traffic:

						Emission Factor		Potential Emissions			
						PM	PM_{10}	PM		PM_{10}	
Vehicle	s	S	W	w	p	(lb/VMT)	(lb/VMT)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Rock Truck	9.6	5	27.5	6	90	3.423	1.232	5.135	22.490	1.848	8.096
Product Truck	10	5	22.5	10	90	4.000	1.440	5.867	25.697	2.112	9.251
							TOTAL	11.002	48.187	3.961	17.347

	Mine Road	Access Road
Round Trip Distance (miles)	1.5	1.1
Tons Hauled per Round Trip	20	15
Potential Tons Hauled per hour	20	20
Potential Round Trips per hour	1.00	1.33
Actual Tons Hauled per hour	1.1416	1.1416
Actual Round Trips per hour	0.0571	0.0761

$$E = k(5.9)\left(\frac{s}{12}\right)\left(\frac{S}{30}\right)\left(\frac{W}{3}\right)^{0.7}\left(\frac{w}{4}\right)^{0.5}\left(\frac{365-p}{365}\right) = \text{lb/VMT}$$

E = emission factor in pounds per Vehicle Mile Traveled.
k = particle size multiplier = 1.0 for PM and 0.36 for PM_{10}
s = silt content %
S = mean vehicle speed (mph)
W = mean vehicle weight (tons)
w = mean number of wheels
p = number of days with at least 0.01 inches of precipitation per year

APPENDIX B

State Application Forms

Bear River Zeolite Company, Inc.

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 1
01/11/07

Please see instructions on page 2 before filling out the form.

DEQ USE ONLY
Date Received
Project Number
Payment / Fees Included? Yes ☐ No ☐
Check Number

COMPANY NAME, FACILITY NAME, AND FACILITY ID NUMBER

1. Company Name: **Bear River Zeolite Company**

2. Facility Name: 3. Facility ID No. 041-00010

4. Brief Project Description - One sentence or less: Install Roller Mill and Modify Dryer

PERMIT APPLICATION TYPE

5. ☐ New Facility ☒ New Source at Existing Facility ☐ Unpermitted Existing Source
☒ Modify Existing Source: Permit No.: P-040310 Date Issued: September 20, 2005
☐ Required by Enforcement Action: Case No.: _____

6. ☐ Minor PTC ☐ Major PTC

FORMS INCLUDED

Included	N/A	Forms	DEQ Verify
☒	☐	Form GI – Facility Information	☐
☒	☐	Form EU0 – Emissions Units General	☐
☐	☒	Form EU1 - Industrial Engine Information Please Specify number of forms attached: _____	☐
☒	☐	Form EU2 - Nonmetallic Mineral Processing Plants Please Specify number of forms attached: _____	☐
☐	☒	Form EU3 - Spray Paint Booth Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU4 - Cooling Tower Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU5 – Boiler Information Please Specify number of forms attached: _____	☐
☐	☒	Form HMAP – Hot Mix Asphalt Plant Please Specify number of forms attached: _____	☐
☐	☒	Form CBP - Concrete Batch Plant Please Specify number of forms attached: _____	☐
☒	☐	Form BCE - Baghouses Control Equipment	☐
☐	☒	Form SCE - Scrubbers Control Equipment	☐
☒	☐	Forms EI-CP1 - EI-CP4 - Emissions Inventory– criteria pollutants (Excel workbook, all 4 worksheets)	☐
☒	☐	PP – Plot Plan	☐
☒	☐	Forms MI1 – MI4 – Modeling (Excel workbook, all 4 worksheets)	☐
☐	☒	Form FRA – Federal Regulation Applicability	☐

General Information **Form GI**

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 1
01/11/07

Please see instructions on page 2 before filling out the form.

All information is required. If information is missing, the application will not be processed.

IDENTIFICATION	
1. Company Name	Bear River Zeolite Company
2. Facility Name (If different than #1)	
3. Facility I.D. No.	041-00010
4. Brief Project Description:	Install Roller Mill and Modify Dryer Capacity
FACILITY INFORMATION	
5. Owned/operated by: (√ if applicable)	☐ Federal government ☐ County government ☐ State government ☐ City government
6. Primary Facility Permit Contact Person/Title	John C. Lawrence / President
7. Telephone Number and Email Address	(406) 827-3523
8. Alternate Facility Contact Person/Title	
9. Telephone Number and Email Address	
10. Address to which permit should be sent	PO Box 643
11. City/State/Zip	Thompson Falls MT, 59873
12. Equipment Location Address (If different than #8)	UTM Coordinates: 436 km E, 4,666 km N Zone 11
13. City/State/Zip	Approx. 6 miles Northwest of Preston, Idaho
14. Is the Equipment Portable?	☐ Yes ☒ No
15. SIC Code(s) and NAISC Code	Primary SIC: 3299 Secondary SIC (If any): 1499 NAICS: 327999
16. Brief Business Description and Principal Product	Mines, crushes and screens Zeolite.
17. Identify any adjacent or contiguous facility that this company owns and/or operates	
PERMIT APPLICATION TYPE	
18. Specify Reason for Application	☐ New Facility ☒ New Source at Existing Facility ☒ Modify Existing Source; Permit No. P-040310 Date Issued: Sept. 20, 2005 ☐ Unpermitted Existing Source: ☐ Required by Enforcement Action: Case No.:
CERTIFICATION	
IN ACCORDANCE WITH IDAPA 58.01.01.123 (RULES FOR THE CONTROL OF AIR POLLUTION IN IDAHO), I CERTIFY BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION IN THE DOCUMENT ARE TRUE, ACCURATE, AND COMPLETE.	
19. Responsible Official's Name/Title	John C. Lawrence / President
20. RESPONSIBLE OFFICIAL SIGNATURE	Date: 26 Feb 2007
21. ☐ Check here to indicate you would like to review a draft permit prior to final issuance.	

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 1
01/11/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION		
Company Name: Bear River Zeolite Company	Facility Name:	Facility ID No: 041-00010
Brief Project Description:	Install Roller Mill and Modify Dryer Capacity	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION	
1. Emissions Unit (EU) Name:	Rotary Drum Dryer 1
2. EU ID Number:	DRY1
3. EU Type:	☐ New Source ☐ Unpermitted Existing Source ☒ Modification to a Permitted Source – Previous Permit #:P-040310 Date Issued: Sept. 20, 2005
4. Manufacturer:	Shop Built
5. Model:	
6. Maximum Capacity:	0.75 MMBtu
7. Date of Construction:	
8. Date of Modification (if any)	
9. Is this a Controlled Emission Unit?	☐ No ☒ Yes If Yes, Complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT			
10. Control Equipment Name and ID:	Baghouse #2 BGH2		
11. Date of Installation:		12. Date of Modification (if any):	
13. Manufacturer and Model Number:			
14. ID(s) of Emission Unit Controlled:			
15. Is operating schedule different than emission units(s) involved?:	☐ Yes ☒ No		
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐Yes ☐No (If yes, attach and label manufacturer guarantee)		

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency	99.9	99.5				

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)	
18. Actual Operation	
19. Maximum Operation	8760 hr/yr

REQUESTED LIMITS	
20. Are you requesting any permit limits?	☐ Yes ☒ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	
☐ Production Limit(s):	
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☐ Other:	
21. Rationale for Requesting the Limit(s):	

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 1
01/11/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION

Company Name:	Facility Name:	Facility ID No:
Bear River Zeolite Company		041-00010
Brief Project Description:	Install Roller Mill and Modify Dryer Capacity	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION

1. Emissions Unit (EU) Name:	Rotary Drum Dryer 2
2. EU ID Number:	DRY2
3. EU Type:	☐ New Source ☐ Unpermitted Existing Source ☒ Modification to a Permitted Source -- Previous Permit #: Date Issued:
4. Manufacturer:	Shop Built
5. Model:	
6. Maximum Capacity:	0.75 MMBtu
7. Date of Construction:	
8. Date of Modification (if any)	
9. Is this a Controlled Emission Unit?	☐ No ☒ Yes If Yes, Complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT

10. Control Equipment Name and ID:	Baghouse #2 BGH2		
11. Date of Installation:		12. Date of Modification (if any):	
13. Manufacturer and Model Number:			
14. ID(s) of Emission Unit Controlled:			
15. Is operating schedule different than emission units(s) involved?:	☐ Yes ☒ No		
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐Yes ☐No (If yes, attach and label manufacturer guarantee)		

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency	99.9	99.5				

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)

18. Actual Operation	
19. Maximum Operation	8760 hr/yr

REQUESTED LIMITS

20. Are you requesting any permit limits?	☐ Yes ☒ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	
☐ Production Limit(s):	
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☐ Other:	
21. Rationale for Requesting the Limit(s):	

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 1
01/11/07

Please see instructions on page 2 before filling out the form.

This form requests information about equipment at a nonmetallic mineral processing plant, as defined in 40 CFR 60.671, that generates fugitive emissions only.

In addition, forms EU0 and appropriate control equipment forms should be used for each stack emission point from the same plant.

IDENTIFICATION		
Company Name: **Bear River Zeolite Company**	Facility Name:	Facility ID No: **041-00010**
Brief Project Description:	Install Roller Mill and Modify Dryer Capacity	

EQUIPMENT (EMISSION UNIT) DESCRIPTION AND SPECIFICATIONS					
1. Equipment Description	2. Construction Date	3. Serial Number	4. Equipment ID Number (company's)	5. Rated Capacity	6. Emission Control Type
Primary Jaw Crusher	1973		JCR	300 tph	None
Cone Crusher	1958		CCR	100 tph	Enclosed /Baghouse
Philadelphia Hammer Mill			PHM	10 tph	Enclosed /Baghouse
Jeffries Hammer Mill			JHM	50 tph	Enclosed /Baghouse
~~Allis Chalmers Tube Mill~~	———	———	~~ACTM~~	~~10 tph~~	~~Enclosed /Baghouse~~
Alston Power Roller Mill	1979		APRM	15 tph	Baghouse
Kohlberg Screen Plant			SC1	5' × 12'	Enclosed /Baghouse
Midwest Screen Plant (W)			SC2	5' × 7'	Enclosed /Baghouse
Midwest Screen Plant (E)			SC3	5' × 7'	Enclosed /Baghouse
Midwest Screen Plant			SC4	4' × 8'	Enclosed /Baghouse
Sweeco Screen			SC5	4' diam.	Enclosed /Baghouse
Sweeco Screen			SC6	4' diam.	Enclosed /Baghouse
Derrick Screen			SC7	3.5' × 10.5'	Enclosed /Baghouse
Derrick Screen			SC8	3.5' × 10.5'	Enclosed /Baghouse
Sweeco Screen			SC9	18" diam.	Enclosed /Baghouse
Sweeco Screen			SC10	4' diam.	Enclosed /Baghouse
Sweeco Screen			SC12	30" diam.	Enclosed /Baghouse

OPERATING SCHEDULE (hours/day, or hours/week, or months/year, or other)	
7. Actual Operation	24 hr/day
8. Maximum Operation	24 hr/day

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 1
01/11/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION		
Company Name: Bear River Zeolite Company	**Facility Name:**	**Facility ID #:** 041-00010
Brief Project Description: Install Roller Mill and Modify Dryer Capacity		

IDENTIFICATION				BAGHOUSE			BAGS			
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Emission Unit	EU ID No.	CE ID No.	Stack ID No.	Baghouse Manufacturer	Baghouse Model No.	Type	Type	Size (Dia x Ht)	No. of Bags	Air to Cloth
Baghouse #1	BLDG1		BGH1							
Baghouse #2	DRY1,2		BGH2							
Baghouse #3	BLDG2		BGH3	Micro Pulse						
Baghouse #4	BLDG3		BGH4							
Baghouse #5	BLDG4		BGH5							
Baghouse #6	RM1		BGH6							

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton Boise, ID 83706 **For assistance: (208) 373-0502**	**PERMIT TO CONSTRUCT APPLICATION**

Company Name:	**Bear River Zeolite Company**
Facility Name:	
Facility ID No.:	041-00010
Brief Project Description:	Install Roller Mill and Modify Dryer

SUMMARY OF FACILITY WIDE EMISSION RATES FOR CRITERIA POLLUTANTS - POINT SOURCES

		3.											
1.	2.	PM_{10}		SO_2		NO_X		CO		VOC		Lead	
Emissions units	**Stack ID**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**
Point Source(s)													
Baghouse #1	BGH1	0.801	3.508										
Baghouse #2 (Dryers)	BGH2	0.376	1.647	3.29E-04	1.44E-03	0.23	1.007	0.0312	0.137			7.35E-07	3.22E-06
Baghouse #3	BGH3	0.511	2.237										
Baghouse #4	BGH4	0.318	1.392										
Baghouse #5	BGH5	0.454	1.987										
Baghouse #6	BGH6	0.528	2.313										
name of the emissions unit7													
name of the emissions unit8													
name of the emissions unit9													
name of the emissions unit10													
name of the emissions unit11													
name of the emissions unit12													
name of the emissions unit13													
name of the emissions unit14													
name of the emissions unit15													
name of the emissions unit16													
name of the emissions unit17													
name of the emissions unit18													
name of the emissions unit19													
name of the emissions unit20													
name of the emissions unit21													
(insert more rows as needed)													
Total		2.99	13.08	0.00	0.00	0.23	1.01	0.03	0.14			0.00	0.00

DEQ AIR QUALITY PROGRAM
1410 N. Hilton
Boise, ID 83706
For assistance: (208) 373-0502

PERMIT TO CONSTRUCT APPLICATION

Company Name:	**Bear River Zeolite Company**
Facility Name:	
Facility ID No.:	041-00010
Brief Project Description:	Install Roller Mill and Modify Dryer

SUMMARY OF FACILITY WIDE EMISSION RATES FOR CRITERIA POLLUTANTS - FUGITIVE SOURCES

		3.											
1.	2.	PM_{10}		SO_2		NO_X		CO		VOC		Lead	
Fugitive Source Name	**Fugitive ID**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**
Fugitive Source(s)													
Process Building 1	BLDG1	0.584	0.512										
Process Building 2	BLDG2	0.167	0.733										
Process Building 3	BLDG3	0.591	1.035										
Process Building 4	BLDG4	1.086	4.757										
Jaw Crusher	JCR1	0.080	0.023										
Outside Material Transfers	TPFUG	0.727	3.185										
Mine Site Drilling		0.076	0.334										
Mine Site Blasting		1.524	6.674										
Rock Truck Loading		0.040	0.177										
Vehicle Traffic		3.961	17.347										
Name of Fugitive Source 11													
Name of Fugitive Source 12													
Name of Fugitive Source 13													
Name of Fugitive Source 14													
Name of Fugitive Source 15													
Name of Fugitive Source 16													
Name of Fugitive Source 17													
Name of Fugitive Source 18													
Name of Fugitive Source 19													
Name of Fugitive Source 20													
Name of Fugitive Source 21													
... (insert more rows as needed)													
Total		8.84	34.78										

DEQ AIR QUALITY PROGRAM
1410 N. Hilton
Boise, ID 83706
For assistance: (208) 373-0502

PERMIT TO CONSTRUCT APPLICATION

Company Name:	**Bear River Zeolite Company**
Facility Name:	
Facility ID No.:	041-00010
Brief Project Description:	Install Roller Mill and Modify Dryer

SUMMARY OF AIR IMPACT ANALYSIS RESULTS - CRITERIA POLLUTANTS

		1.		2.	3.	4.		5.
Criteria Pollutants	**Averaging Period**	**Significant Impact Analysis Results (µg/m3)**	**Significant Contribution Level (µg/m3)**	**Full Impact Analysis Results (µg/m3)**	**Background Concentration (µg/m3)**	**Total Ambient Impact (µg/m3)**	**NAAQS (µg/m3)**	**Percent of NAAQS**
PM_{10}	24-hour	65.28523	5	49.53464	73	122.53	150	82%
	Annual	4.43361	1	4.43361	26	30.43	50	61%
SO_2	3-hr	0.0175	25				1300	
	24-hr	0.0036	5				365	
	Annual	0.00012	1				80	
NO_2	Annual	0.08297	1				100	
CO	1-hr	2.58386	2000				10000	
	8-hr	0.72116	500				40000	

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton Boise, ID 83706 **For assistance: (208) 373-0502**	**PERMIT TO CONSTRUCT APPLICATION**
Company Name:	**Bear River Zeolite Company**	
Facility Name:		
Facility ID No.:	041-00010	
Brief Project Description:	Install Roller Mill and Modify Dryer	

POINT SOURCE STACK PARAMETERS

1.	2.	3a.	3b.	4.	5.	6.	.7	8.	9.	10.
Emissions units	**Stack ID**	**UTM Easting (m)**	**UTM Northing (m)**	**Base Elevation (m)**	**Stack Height (m)**	**Modeled Diameter (m)**	**Stack Exit Temperature (K)**	**Stack Exit Flowrate (acfm)**	**Stack Exit Velocity (m/s)**	**Stack orientation (e.g., horizontal, rain cap)**
Point Source(s)										
Baghouse #1	BGH1	436033.9	4666000.3	1,570.20	2.21	0.69	294.26		7.71	Vertical
Baghouse #2	BGH2	436039.0	4665971.9	1,566.69	2.44	0.40	344.26		10.77	Vertical
Baghouse #3	BGH3	436039.0	4665955.8	1,564.06	6.71	0.36	294.26		0.00	Horizontal
Baghouse #4	BGH4	436052.4	4665960.1	1,567.48	2.74	0.38	294.26		9.11	Vertical
Baghouse #5	BGH5	436035.4	4665932.5	1,562.91	1.89	0.37	294.26		14.97	Vertical
Baghouse #6	BGH6	436012.4	4665972.7	1,567.20	6.10	0.37	294.26		17.38	Vertical
name of the emissions unit7										
name of the emissions unit8										
name of the emissions unit9										
name of the emissions unit10										
name of the emissions unit11										
name of the emissions unit12										
name of the emissions unit13										
name of the emissions unit14										
name of the emissions unit15										
name of the emissions unit16										
name of the emissions unit17										
name of the emissions unit18										
name of the emissions unit19										
name of the emissions unit20										
name of the emissions unit21										
(insert more rows as needed)										

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton Boise, ID 83706 **For assistance: (208) 373-0502**	**PERMIT TO CONSTRUCT APPLICATION**
Company Name:	Bear River Zeolite Company	
Facility Name:		
Facility ID No.:	041-00010	
Brief Project Description:	Install Roller Mill and Modify Dryer	

FUGITIVE SOURCE PARAMETERS

1.	2.	3a.	3b.	4.	5.	6.	7.	8.	9.	10.
Emissions units	**Stack ID**	**UTM Easting (m)**	**UTM Northing (m)**	**Base Elevation (m)**	**Release Height (m)**	**Easterly Length (m)**	**Northerly Length (m)**	**Angle from North (°)**	**Initial Vertical Dimension (m)**	**Initial Horizontal Dimension (m)**
Area Source(s)										
name of the emissions unit1										
name of the emissions unit2										
name of the emissions unit3										
name of the emissions unit4										
name of the emissions unit5										
name of the emissions unit6										
name of the emissions unit7										
name of the emissions unit8										
name of the emissions unit9										
name of the emissions unit10										
Volume Source(s)										
Jaw Crusher	JCR1	436,037.50	4,666,025.60	1,574.26	1.83				1.70	0.25
Primary Crushing Bldg	BLDG1	436,038.90	4,666,004.10	1,570.74	4.27				3.97	1.42
Coarse Products Bldg	BLDG2	436,026.60	4,665,945.40	1,563.20	3.05				2.84	2.98
Jeffries Hammer Mill Bldg	BLDG3	436,047.70	4,665,949.90	1,564.10	3.05				2.84	1.56
Fine Products Bldg	BLDG4	436,040.90	4,665,922.10	1,561.64	3.05				2.84	3.19
Transfer Point Fugitives	TPFUG	436,028.60	4,665,971.90	1,566.29	6.10				5.67	12.76
name of the emissions unit17										
name of the emissions unit18										
name of the emissions unit19										
(insert more rows as needed)										

DEQ AIR QUALITY PROGRAM
1410 N. Hilton
Boise, ID 83706
For assistance: (208) 373-0502

PERMIT TO CONSTRUCT APPLICATION

Company Name:	**Bear River Zeolite Company**
Facility Name:	
Facility ID No.:	041-00010
Brief Project Description:	Install Roller Mill and Modify Dryer

BUILDING AND STRUCTURE INFORMATION

1.	2.	3.	4.	5.	6.	7.
Building ID Number	**Length (ft)**	**Width (ft)**	**Base Elevation (m)**	**Building Height (m)**	**Number of Tiers**	**Description/Comments**
Bld1	70.00	20.00	1571.21	5.49	1	Primary Crushing
Bld2	80.00	67.00	1564.48	6.10	1	Coarse Products
Bld3	50.00	22.00	1566.19	6.10	1	Sec Crushing/Screen
Bld4	60.00	45.00	1562.83	5.49	1	Fine Products Bldg
BLD5	100.00	50.00	1566.15	5.49	1	Warehouse
	Diam. (ft)					
BIN1	13		1567.04	8.23		Minus 1 in Surge
BIN2	12.5		1566.15	12.19		Jeffries 100 Ton Bin
BIN3	12.5		1566.08	12.19		Philadelphia 100 Ton Bin
BIN4	14		1567.51	14.63		So Alston 150 Bin
BIN5	14		1567.71	14.63		Mid Alston 150 Bin
BIN6	14		1567.91	14.63		No Alston 150 Bin
BIN7	12		1566.13	12.80		Alston 125 Ton Feed
BIN8	10		1564.77	15.85		F Prod -40 Bin
BIN9	12		1565.09	12.19		F Prod 14x40

APPENDIX C

Air Dispersion Modeling Analysis

Bear River Zeolite Company, Inc.

Air Dispersion Modeling Report

Bear River Zeolite

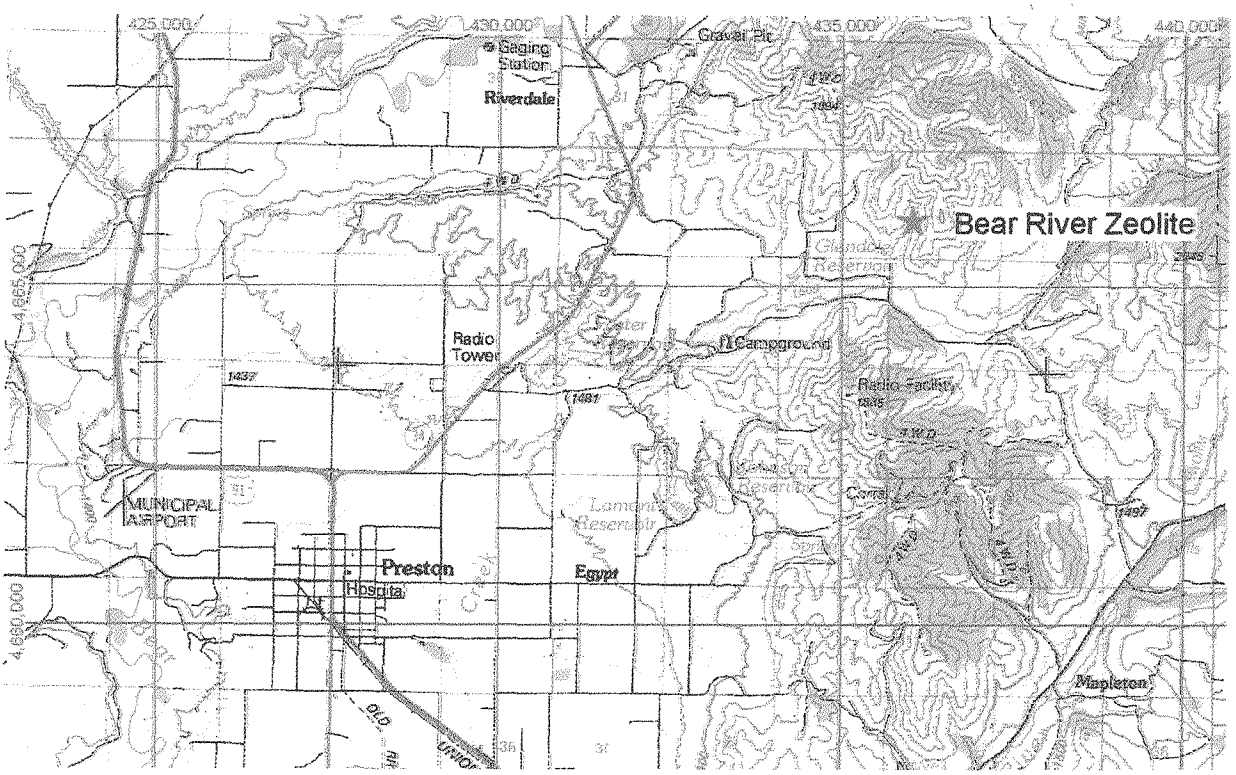
1. Introduction

This air dispersion modeling analysis was performed to demonstrate compliance with the ambient air quality standards for a permit application to modify Bear River Zeolite Company's Permit to construct Number 777-00278.

The original application submitted on February 15, 2007 included emissions from the Allis Chalmers tube mill located in the fine products building (building #4). This mill has been removed and the emission inventory in this application revised to reflect this. Because the revised emission inventory only resulted in a decrease of 0.049 lb/hr of PM-10 emissions, this modeling analysis was not revised, as the change to the ambient impact would not be significant.

The facility employs two crushers, four grinding mills and eleven screening plants to produce various size fractions of zeolite. Material is transported through the processing plant using conveyor belts, bucket elevators and augers. Two propane fired rotary drum dryers are used to dry the zeolite. Electricity for the facility is now provided by line power. The three diesel generators are available for emergency backup. Figure 1 below shows the facility location.

Figure 1



2. Model Description and Justification

AERMOD version 07026 was used to perform the air dispersion modeling analysis for PM-10, CO, SO2, NO2 and lead. This model replaces the Industrial Source Complex model ISCST3 used in the previous impact analysis. Terrain and meteorological data will be processed using AERMAP and AERMET version 06341.

The AERMOD modeling analysis was revised from the previous ISCST3 modeling analysis to reflect modifications to the facility. Because the facility now uses line power, emissions from the generators were not modeled. Two 0.75 MMBtu dryers will be employed instead of the single 1.0 MMBtu Dryer.

3. Emissions and Source Data

Emission estimates are based on a maximum facility throughput of 20 tons per hour and 175,200 tons per year.

Particulate emissions from the six baghouses were calculated from the grain loading emission limit of 0.022 gr/dscf in 40 CFR 60.672. PM-10 emissions were estimated from the particle size distribution table in AP-42 Appendix B.2 Category 4 which shows 85% of the emissions are under 10 microns. CO, SO2, NO2 and lead emission estimates for the dryers, controlled by baghouse number two, were calculated using emission factors from AP-42 Table 1.5-1 (Liquefied Petroleum Gas Combustion) and Tables 1.4-2, 1.4-3 and 1.4-4 (Natural Gas Combustion). No toxic air pollutants from the dryers exceeded the emission screening levels. An exit velocity of 0.001 m/sec. was used for baghouse 3, which exhausts horizontally. Table 1 below summarizes the baghouse stack parameters and emissions.

Table 1 Modeled Point Source Data

Source ID	Easting (X) (m)	Northing (Y) (m)	Base Elevation (ft)	Stack Height (ft)	Temperature (°F)	Exit Velocity (m/s)	Stack Diameter (ft)	PMTEN (lb/hr)	CO (lb/hr)	SO2 (lb/hr)	NO2 (lb/hr)	PB (lb/hr)
BGH1	436033.9	4666000.3	5151.6	7.2	70.0	7.708	2.260	0.801	0	0	0	0
BGH2	436039.0	4665971.9	5140.0	8.0	160.0	10.768	1.310	0.376	0.0312	3.29E-04	0.230	7.35E-07
BGH3	436039.0	4665955.8	5131.4	22.0	70.0	0.001	1.180	0.511	0	0	0	0
BGH4	436052.4	4665960.1	5142.7	9.0	70.0	9.111	1.250	0.318	0	0	0	0
BGH5	436035.4	4665932.5	5127.7	6.2	70.0	14.973	1.220	0.454	0	0	0	0
BGH6	436012.4	4665972.7	5141.7	20.0	70.0	17.382	1.220	0.528	0	0	0	0

Process fugitive emissions from crushing, screening and material transfers inside buildings were estimated from emission factors in AP-42 11.19.2. Fugitive emissions generated inside a building were totaled, given a control efficiency of 70% and modeled as a single volume source for that building. Horizontal and vertical dimensions were calculated following Table 3-1 of the AERMOD Users Guide by dividing the building width by 4.3 and the building height by 2.15.

The facility has 18 material transfer points not enclosed in buildings. These transfers include material feed to the apron feeder and jaw crusher, conveyor belt transfers, bucket elevator transfers, transfers into storage silos, the stockpile and truck load-out. It would not be feasible to model each of these transfer points as an individual volume sources. Not all transfers operate at the same time or at the same throughput rate. To estimate the ambient impact for these fugitive emissions, they were combined into a single volume source (TPFUG) with an average release height of 20 feet and a

vertical height of 40 feet (σ_{zo} 18.60). Emissions were estimated using the predictive emissions equation in AP-42 13.2.4 using a moisture content (M) of 2.5% and an average wind speed (U) of 10 miles per hour. This equation gives an emission factor of 0.00202 lb PM-10 per ton of material transferred with the PM-10 particle size multiplier (k) of 0.32. To be conservative, all of the 18 transfer points were assigned the maximum throughput of 20 tons per hour. The emissions calculation is shown below.

$$E_f\left(\frac{lb}{ton}\right) = (k \times 0.0032)\frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} = (0.35 \times 0.0032)\frac{\left(\frac{10}{5}\right)^{1.3}}{\left(\frac{2.5}{2}\right)^{1.4}} = \mathbf{2.02E-03\ lb\ PM_{10}/ton}$$

$2.02E-3\ lb\ PM_{10}/ton \times 20\ tons/hr \times 18\ transfers = \mathbf{0.7272\ lb\ PM_{10}/hr}$

The volume source data is summarized in Table 2 below.

Table 2 Modeled Volume Source Data

Source ID	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (ft)	Release Height (ft)	Horizontal Dimension (ft)	Vertical Dimension (ft)	PMTEN (lb/hr)
JCR1	Jaw Crusher	436037.5	4666025.6	5164.9	6.0	0.820	5.577	0.080
BLDG1	Primary Crushing Bldg	436038.9	4666004.1	5153.3	14.0	4.659	13.025	0.584
BLDG2	Coarse Products Bldg	436026.6	4665945.4	5128.6	10.0	9.777	9.318	0.167
BLDG3	Jeffries Hammer Mill Bldg	436047.7	4665949.9	5131.6	10.0	5.118	9.318	0.591
BLDG4*	Fine Products Bldg	436040.9	4665922.1	5123.5	10.0	10.466	9.318	1.135
TPFUG	Transfer Point Fugitives	436028.6	4665971.9	5138.7	20.0	41.864	18.602	0.727

* Note Removal of the Allis Chalmers Tube Mill changes the emissions from BLDG4 (Fine Products Building) to 1.086 lb PM-10/hr.

The facility has five buildings and nine storage silos. The Building Profile Input Program BPIP-Prime was used to account for building downwash in the AERMOD model analysis. The building and storage bin dimensions are shown in Tables 3 and 4.

Table 3 Building Dimensions

Building ID	Building Name	Number of Tiers	Comment	Base Elevation (ft)	Tier Height (m)	Number of Corners	Corner 1 East (X) (m)	Corner 1 North (Y) (m)
BLD1-1	BLD1	1	Primary Crushing	5154.9	5.4864	4	436035.9	4666014.8
BLD2-1	BLD2	1	Coarse Products	5132.8	6.096	8	436015.7	4665951.1
BLD3-1	BLD3	1	Sec Crushing/Screen	5138.4	6.096	4	436043.8	4665961.7
BLD4-1	BLD4	1	Fine Products Bldg	5127.4	5.4864	4	436034	4665931.3
BLD5-1	BLD5	1	Warehouse	5138.3	5.4864	4	436060.8	4665913.2

Table 4 Storage Bin Dimensions

Tank Name	Description	Base Elevation (ft)	Center East (X) (m)	Center North (Y) (m)	Tank Height (ft)	Tank Diameter (ft)
BIN1	Minus 1 in Surge	5142	436043.6	4665974.9	27	13
BIN2	Jeffries 100 Ton Bin	5136	436048.3	4665963.6	40	12.5
BIN3	Philadelphia 100 Ton Bin	5134	436036.1	4665960.6	40	12.5
BIN4	So Alston 150 Bin	5142	436006	4665968.5	48	14
BIN5	Mid Alston 150 Bin	5143	436006	4665972.7	48	14
BIN6	No Alston 150 Bin	5144	436006	4665977	48	14
BIN7	Alston 125 Ton Feed	5137	436028.7	4665969.7	42	12
BIN8	F Prod -40 Bin	5129	436052.3	4665923.4	52	10
BIN9	F Prod 14x40	5126	436050.2	4665917.6	40	12

Figure 2 shows the facility layout with the buildings labeled as black rectangles and the emission sources shown in red. They are overlaid on the UTM grid.

Figure 2

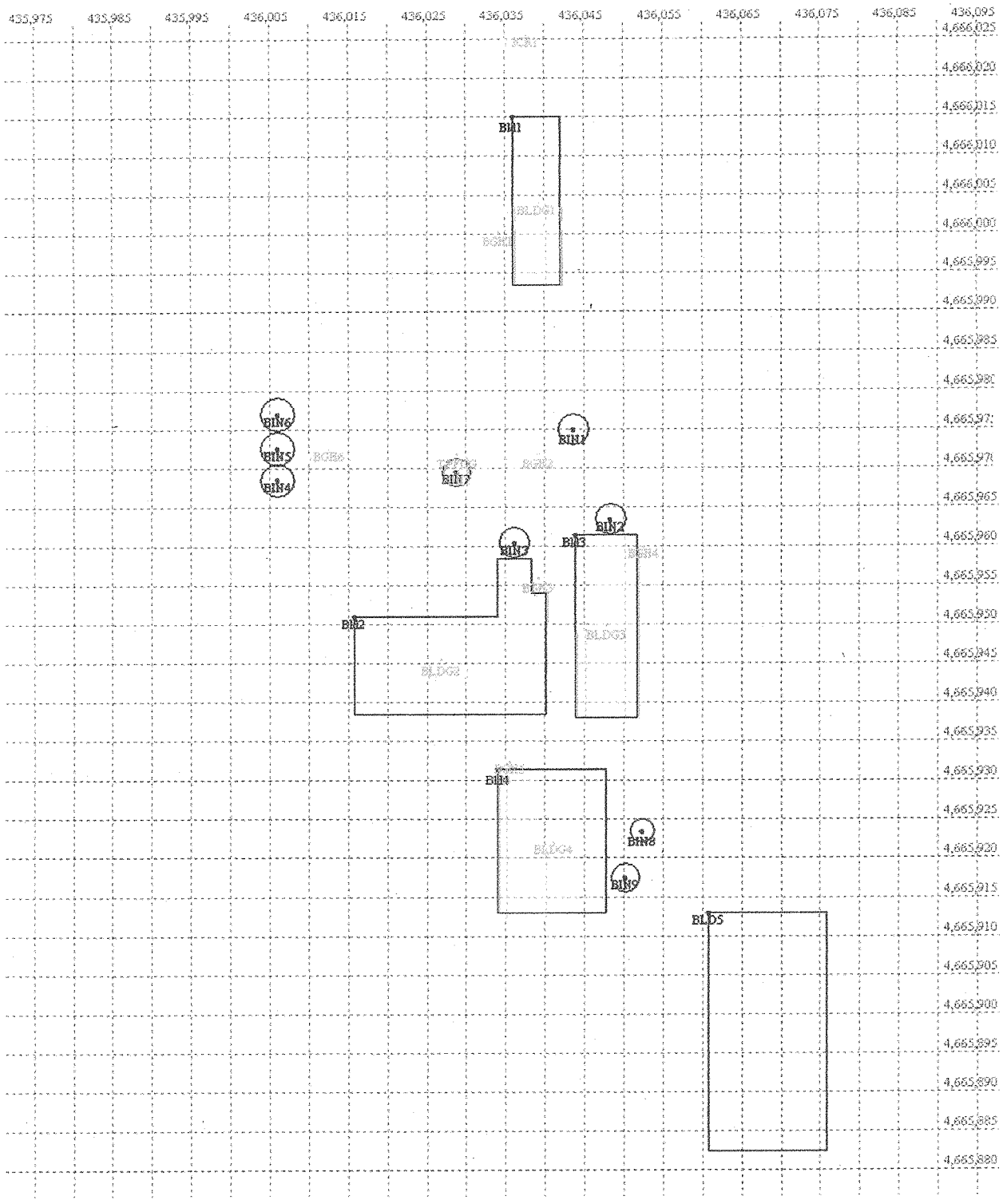
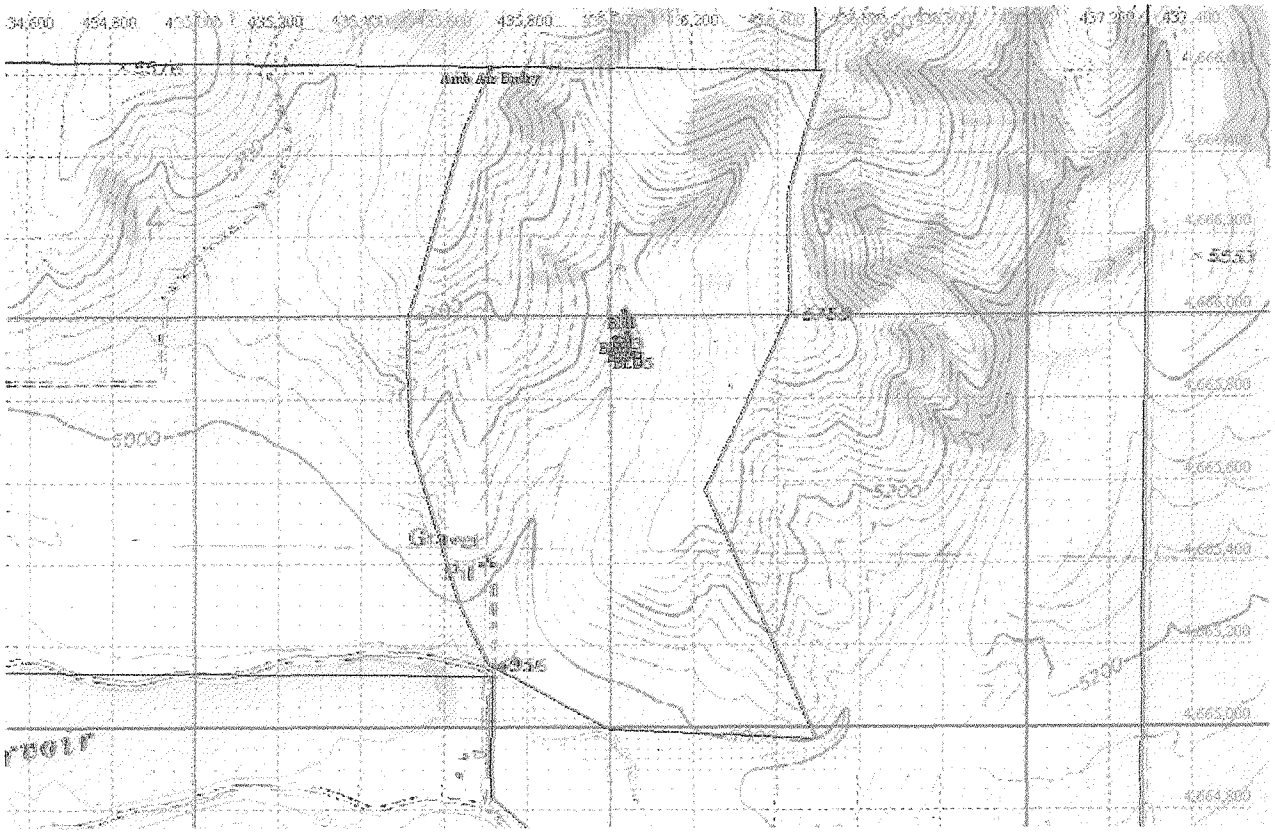


Figure 3 shows the facility in relation to local topography and the ambient air boundary as was used in the previous permit modeling.

Figure 3



4. Receptor Network

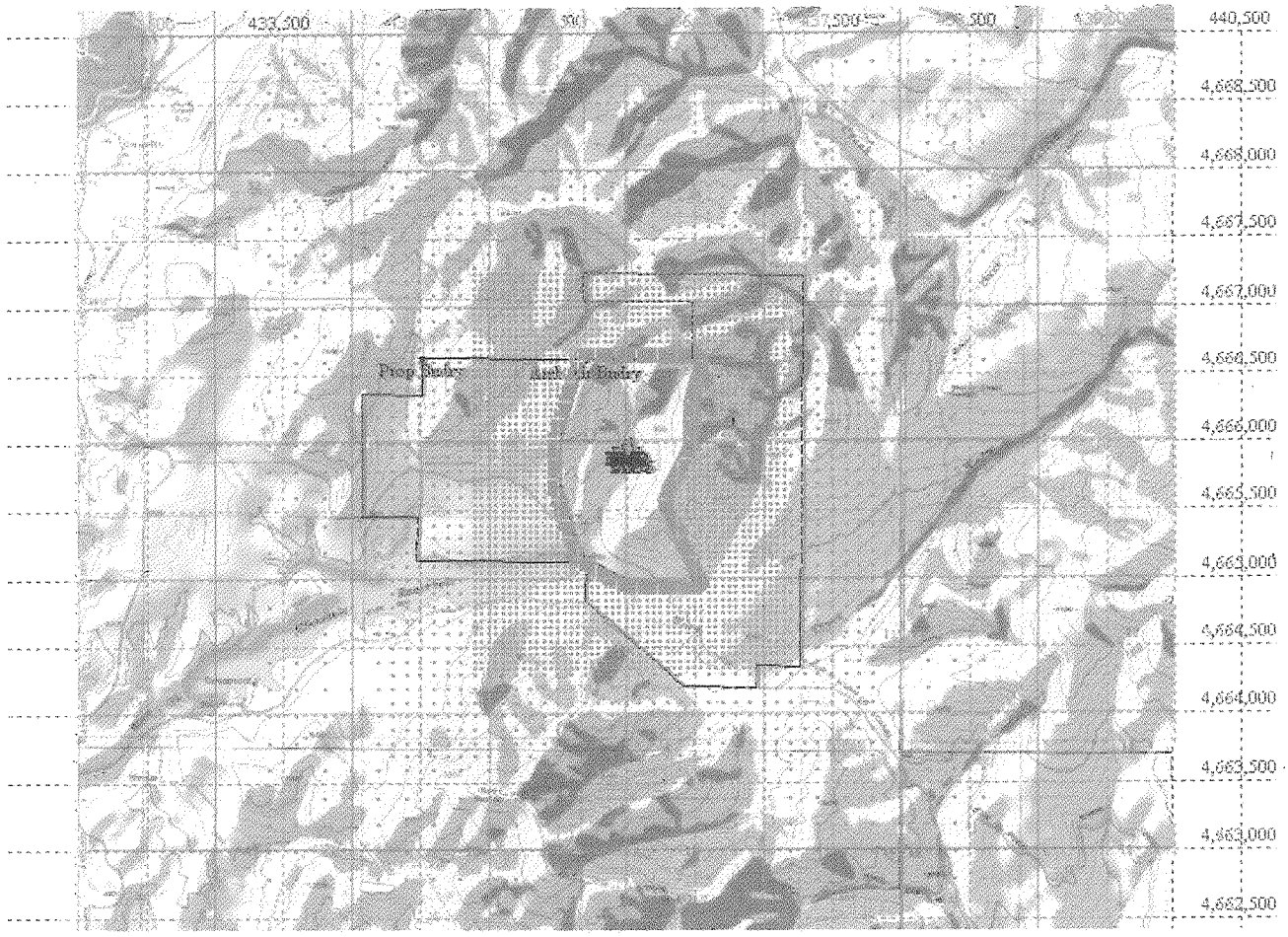
The receptor network will be a rectangular grid extending 2000 meters beyond the source. Receptors will be spaced from 25 meters apart for the fine grid to 200 meters apart for the coarsest grid as shown in the table and graphic below.

Table 4 Receptor Spacing

Receptor Spacing	Distance
25 meters	Fence Line Out to 100 meters
50 meters	Out to 600 meters
100 meters	Out to 1,200 meters
200 meters	Out to 2,000 meters

Figure 4 shows the receptor network and the ambient air boundary.

Figure 4

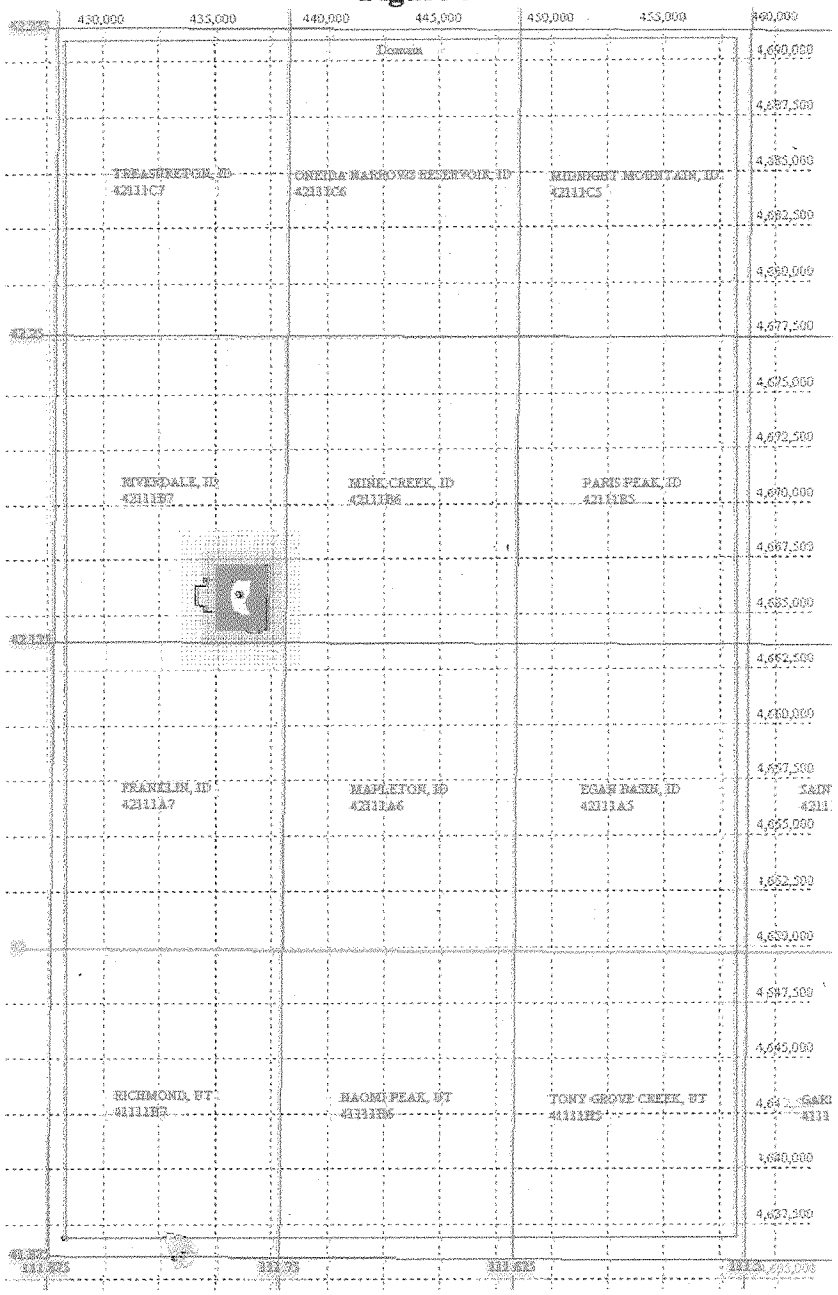


An ambient air boundary was constructed around the plant and mine site and within the property controlled by Bear River Zeolite. The only vehicle access to the facility is by a ½ mile gated private road. Public access to other areas within the ambient air boundary would require crossing posted private agricultural land and/or traversing difficult terrain by foot. Unauthorized people entering the ambient air boundary would likely be spotted and confronted by plant personnel.

5. AERMAP Input and Elevation Data

All building, source base and receptor elevations were calculated from 7.5-minute, 30-meter resolution DEM data using 1927 North American Data (NAD27) using the AERMAP preprocessor. Figure 5 shows the 7.5-minute quadrangles and the domain limits.

Figure 5



6. Meteorological Data

Five years of National Weather Service (NWS) meteorological data for the years 1987 through 1991 was used in the modeling analysis. Surface data came from the Pocatello NWS station number 24156. Because the Pocatello station does not collect upper air data, the Boise, Idaho Station number 24131 upper air data was used. These are the same stations and years used in the previous ISCT3 modeling for the facility.

An additional modeling analysis was made using meteorological data supplied by the State. This was collected at the Monsanto site outside Soda Springs and used Salt Lake City upper air. Table 5 summarizes the meteorological information.

Table 5 Meteorological Information

Parameter	Station	Latitude	Longitude	Time Zone Adjust	Base Elevation	Anemometer Height
Surface Meteorlogical Data	Pocatello, ID No. 24156	42.92	112.571	0	4461	20 ft
Upper Air Meteorlogical Data	Boise, ID No. 24131	43.565	116.22	+7	2874	20 ft
Site Location	Bear River Zeolite	47.543	116.132	+7	---	---

The albedo, Bowen ratio and surface roughness parameters required in the AERMET processing was based on seasonal values shown in the AERMET Manual tables 4-1, 4-2 and 4-3. The surface characteristics within a 3-kilometer radius of the meteorological station most closely resemble cultivated land and grassland. Four wind sectors were chosen to reflect the surface characteristic as shown in Figure 6.

Figure 6

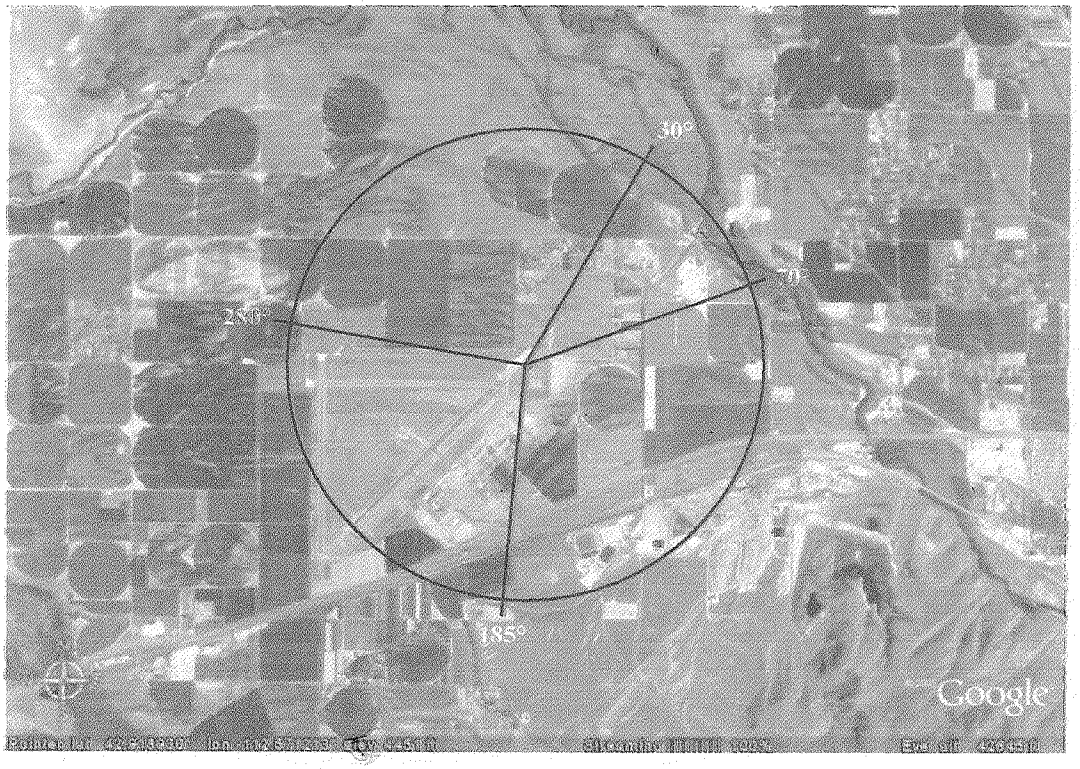


Table 6 shows the seasonal values used in the meteorological processing.

Table 6 AERMET Site Characteristics Parameters

Sectors	Time Frequency	Surface Albedo	Bowen Ratio	Surface Roughness
	Grass Land/Average Moisture			
Sector 1 (30° - 70°) and Sector 3 (185° - 280°)	Winter	0.6	1.5	0.001
	Spring	0.18	0.4	0.05
	Summer	0.18	0.8	0.1
	Autumn	0.2	1.0	0.01
	Cultivated Land/Average Moisture			
Sector 2 (70° - 185°) and Sector 4 (280° - 30°)	Winter	0.6	1.5	0.01
	Spring	0.14	0.3	0.03
	Summer	0.2	0.5	0.2
	Autumn	0.18	0.7	0.05

7. Land Use Classification

Rural land use was used in the modeling analysis. Over 50 percent of the area within a 3 kilometer radius is classified as A2, agricultural rural A3, or undeveloped uncultivated. Population density is less than 750 people per square mile.

8. Background Concentrations

Rural agricultural background concentrations provided by the Idaho Department of Environmental Quality were added to the modeled results for the National Ambient Air Quality Standards (NAAQS) analysis. The background concentrations used are shown below.

Pollutant	Averaging Period	Background Concentration
PM10	24-hr	73 $\mu g/m^3$
	Annual	26 $\mu g/m^3$
CO	1-hr	3,600 $\mu g/m^3$
	8-hr	2,300 $\mu g/m^3$
NO2	Annual	17 $\mu g/m^3$
SO2	3-hr	34 $\mu g/m^3$
	24-hr	26 $\mu g/m^3$
	Annual	8 $\mu g/m^3$
Pb	Quarterly	0.03 $\mu g/m^3$

9. Evaluation of Compliance with Applicable Standards

A significant impact analysis for criteria air pollutants was performed to determine if the maximum impact to the ambient air exceeds the significant contribution levels of IDAPA 58.01.01.006.93. For pollutants that exceed the significant contribution level, a full impact analysis of the NAAQS must be made. The NAAQS analysis requires adding background concentrations to the modeled ambient concentrations.

Results of the significant impact analysis and the NAAQS analysis are shown in Tables 7 and 8.

Table 7 Significant Impact Analysis

Significant Impact Analysis

Pollutant	Averaging Period	Ambient Impact ($\mu g/m^3$)	Significant Contribution ($\mu g/m^3$)	Full Impact Analysis Required?
PM-10	24-hour	65.28523	5	YES
	Annual	4.43361	1	YES
CO	1-hour	2.58386	2,000	NO
	8-hour	0.72116	500	NO
SO2	3-hour	0.0175	25	NO
	24-hour	0.0036	5	NO
	Annual	0.00012	1	NO
NO2	Annual	0.08297	1	NO

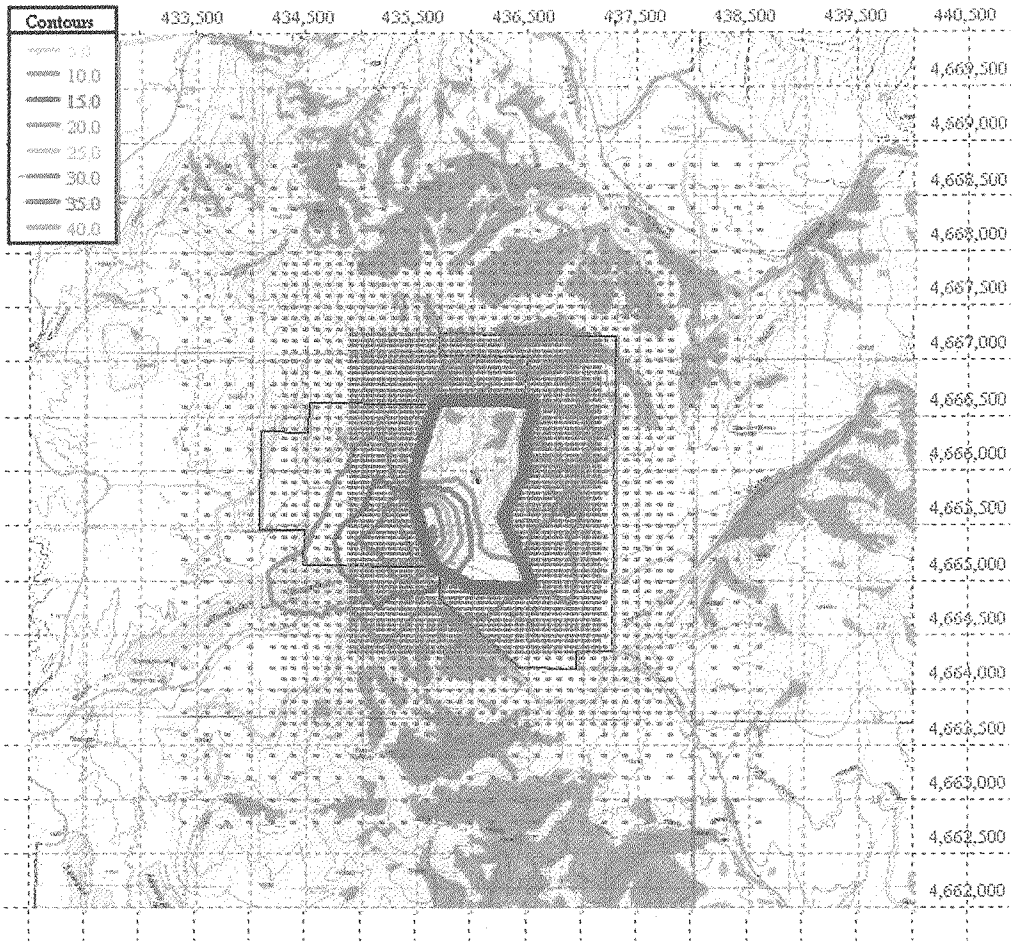
Table 8 NAAQS Analysis

NAAQS Analysis

Pollutant	Averaging Period	Ambient Impact (µg/m³)	Background Concentration (µg/m³)	Total Ambient Concentration (µg/m³)	Regulatory Limit (µg/m³)	Percent of NAAQS
PM-10	24-hour	49.53464	73	122.53464	150	81.69
	Annual	4.43361	26	30.43361	50	60.87
Lead	Quarterly	1.35E-05	0.03	0.0300	1.5	2.00

Figure 7 below shows the highest 6th-highest PM10 concentration contours for the five-year (1987-1991) meteorological data file.

Figure 7



Electronic copies of the input, output and supporting files needed to duplicate the modeling results are included in Appendix D.

Air Dispersion Modeling Results
Bear River Zeolite Company
Preston, Idaho

Summary

Model	File	Pol	Average	Group	Rank	Conc.	East(X)	North(Y)	Elev	Time	Met File	Sources	Groups	Rec.
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	ALL	1ST	65.28523	435490.69	4665624	1565.36	89120224	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	ALL	6TH	49.53464	435545.69	4665614	1564.99	89020724	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	ALL	1ST	3.65993	435545.69	4665614	1564.99	1 YRS	BRZ_91.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	ALL	1ST	4.43361	436049.59	4664995.5	1518.97	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_88_CO.USF	CO	1-HR	ALL	1ST	2.58386	437000	4666050	1568.6	88022502	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_87_CO.USF	CO	1-HR	ALL	2ND	2.54022	437000	4665900	1567.18	87011709	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_89_CO.USF	CO	8-HR	ALL	1ST	0.72116	435590.69	4665449	1544.77	89113008	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_CO.USF	CO	8-HR	ALL	2ND	0.55397	435590.69	4665424	1542.74	89120324	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_88_SO2.USF	SO2	3-HR	ALL	1ST	0.0175	436950	4666000	1572.36	88120306	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_87_SO2.USF	SO2	3-HR	ALL	2ND	0.00893	437000	4665900	1567.18	87011709	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_88_SO2.USF	SO2	24-HR	ALL	1ST	0.0036	436950	4666000	1572.36	88120324	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_89_SO2.USF	SO2	24-HR	ALL	2ND	0.0022	435656.59	4665266.5	1522.8	89122324	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_91_SO2.USF	SO2	ANNUAL	ALL	1ST	0.00012	435545.69	4665614	1564.99	1 YRS	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_NO2.USF	NO2	ANNUAL	ALL	1ST	0.08297	435545.69	4665614	1564.99	1 YRS	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_87_PB.USF	PB	1-HR	ALL	1ST	0.00006	437000	4665900	1567.18	87011704	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_PB.USF	PB	Quarterlty	ALL	1ST	1.35E-05	437000	4665900	1567.18	87011704	BRZ_87.SFC	1	2	4374

5 Year Meteorological File PM 10 Run

Model	File	Pol	Average	Group	Rank	Conc.	East(X)	North(Y)	Elev	Time	Met File	Sources	Groups	Rec.
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	ALL	1ST	65.28523	435490.69	4665624	1565.36	89120224	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	ALL	6TH	49.53464	435545.69	4665614	1564.99	89020724	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BGH1	1ST	6.523	435490.69	4665749	1584.21	91122224	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BGH1	6TH	4.76233	435490.69	4665724	1583.01	88012524	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BGH2	1ST	4.11208	436950	4666000	1572.36	88120324	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BGH2	6TH	1.94603	435545.69	4665614	1564.99	89112824	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BGH3	1ST	6.99174	436850	4665700	1566.99	89122524	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BGH3	6TH	4.26035	435515.69	4665624	1569.81	89020724	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BGH4	1ST	3.83142	435540.69	4665624	1567.34	88121224	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BGH4	6TH	2.5135	435538.81	4665637.5	1572.43	88120324	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BGH5	1ST	5.14245	435538.81	4665637.5	1572.43	89120224	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BGH5	6TH	3.78296	435540.69	4665624	1567.34	88121624	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BGH6	1ST	3.99912	435565.69	4665474	1543.63	91012524	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BGH6	6TH	2.5341	435540.69	4665624	1567.34	87010924	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	JCR1	1ST	2.40456	435580.5	4665497	1550.45	91012524	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	JCR1	6TH	1.70097	435465.69	4665724	1572.8	91122224	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BLDG1	1ST	9.84292	435465.69	4665724	1572.8	91122224	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BLDG1	6TH	6.92364	435538.81	4665637.5	1572.43	91010124	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BLDG2	1ST	4.08674	435490.69	4665624	1565.36	89120224	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BLDG2	6TH	2.75516	435540.69	4665599	1562.77	88122724	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BLDG3	1ST	14.66974	435490.69	4665624	1565.36	89120224	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BLDG3	6TH	9.26787	435545.69	4665614	1564.99	88122724	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BLDG4	1ST	27.29801	435515.69	4665599	1562.6	89120224	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	BLDG4	6TH	17.49484	435540.69	4665599	1562.77	88121624	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	TPFUG	1ST	7.46674	435465.69	4665699	1570.08	91122224	BRZ_87_91.SFC	12	13	4374
AERMOD	BRZ_87_91_PMTEN.USF	PMTEN	24-HR	TPFUG	6TH	6.00601	435465.69	4665674	1566.74	91013024	BRZ_87_91.SFC	12	13	4374

Single Year Meteorological File Runs

Model	File	Pol	Average	Group	Rank	Conc.	East(X)	North(Y)	Elev	Time	Met File	Sources	Groups	Rec.
AERMOD	BRZ__87_PMTEN.USF	PMTEN	ANNUAL	ALL	1ST	3.27963	435545.69	4665614	1564.99	1 YRS	BRZ_87.SFC	12	13	4374
AERMOD	BRZ__87_PMTEN.USF	PMTEN	ANNUAL	BGH1	1ST	0.27795	435531.81	4665660.5	1577.78	1 YRS	BRZ_87.SFC	12	13	4374
AERMOD	BRZ__87_PMTEN.USF	PMTEN	ANNUAL	BGH2	1ST	0.10756	435545.69	4665614	1564.99	1 YRS	BRZ_87.SFC	12	13	4374
AERMOD	BRZ__87_PMTEN.USF	PMTEN	ANNUAL	BGH3	1ST	0.25897	435515.69	4665624	1569.81	1 YRS	BRZ_87.SFC	12	13	4374
AERMOD	BRZ__87_PMTEN.USF	PMTEN	ANNUAL	BGH4	1ST	0.15193	435540.69	4665624	1567.34	1 YRS	BRZ_87.SFC	12	13	4374
AERMOD	BRZ__87_PMTEN.USF	PMTEN	ANNUAL	BGH5	1ST	0.21476	435545.69	4665614	1564.99	1 YRS	BRZ_87.SFC	12	13	4374
AERMOD	BRZ__87_PMTEN.USF	PMTEN	ANNUAL	BGH6	1ST	0.14567	435531.81	4665660.5	1577.78	1 YRS	BRZ_87.SFC	12	13	4374
AERMOD	BRZ__87_PMTEN.USF	PMTEN	ANNUAL	JCR1	1ST	0.07317	435490.69	4665674	1576.1	1 YRS	BRZ_87.SFC	12	13	4374
AERMOD	BRZ__87_PMTEN.USF	PMTEN	ANNUAL	BLDG1	1ST	0.37233	435538.81	4665637.5	1572.43	1 YRS	BRZ_87.SFC	12	13	4374
AERMOD	BRZ__87_PMTEN.USF	PMTEN	ANNUAL	BLDG2	1ST	0.14121	435545.69	4665614	1564.99	1 YRS	BRZ_87.SFC	12	13	4374
AERMOD	BRZ__87_PMTEN.USF	PMTEN	ANNUAL	BLDG3	1ST	0.48844	435545.69	4665614	1564.99	1 YRS	BRZ_87.SFC	12	13	4374
AERMOD	BRZ__87_PMTEN.USF	PMTEN	ANNUAL	BLDG4	1ST	0.94987	435540.69	4665599	1562.77	1 YRS	BRZ_87.SFC	12	13	4374
AERMOD	BRZ__87_PMTEN.USF	PMTEN	ANNUAL	TPFUG	1ST	0.37139	435540.69	4665624	1567.34	1 YRS	BRZ_87.SFC	12	13	4374
AERMOD	BRZ__88_PMTEN.USF	PMTEN	ANNUAL	ALL	1ST	2.85378	435545.69	4665614	1564.99	1 YRS	BRZ_88.SFC	12	13	4374
AERMOD	BRZ__88_PMTEN.USF	PMTEN	ANNUAL	BGH1	1ST	0.26186	435524.91	4665684	1580.15	1 YRS	BRZ_88.SFC	12	13	4374
AERMOD	BRZ__88_PMTEN.USF	PMTEN	ANNUAL	BGH2	1ST	0.09945	435531.81	4665660.5	1577.78	1 YRS	BRZ_88.SFC	12	13	4374
AERMOD	BRZ__88_PMTEN.USF	PMTEN	ANNUAL	BGH3	1ST	0.24085	435515.69	4665624	1569.81	1 YRS	BRZ_88.SFC	12	13	4374
AERMOD	BRZ__88_PMTEN.USF	PMTEN	ANNUAL	BGH4	1ST	0.1357	435540.69	4665624	1567.34	1 YRS	BRZ_88.SFC	12	13	4374
AERMOD	BRZ__88_PMTEN.USF	PMTEN	ANNUAL	BGH5	1ST	0.19741	435540.69	4665624	1567.34	1 YRS	BRZ_88.SFC	12	13	4374
AERMOD	BRZ__88_PMTEN.USF	PMTEN	ANNUAL	BGH6	1ST	0.13509	435524.91	4665684	1580.15	1 YRS	BRZ_88.SFC	12	13	4374
AERMOD	BRZ__88_PMTEN.USF	PMTEN	ANNUAL	JCR1	1ST	0.06678	435490.69	4665674	1576.1	1 YRS	BRZ_88.SFC	12	13	4374
AERMOD	BRZ__88_PMTEN.USF	PMTEN	ANNUAL	BLDG1	1ST	0.32949	435490.69	4665649	1571.22	1 YRS	BRZ_88.SFC	12	13	4374
AERMOD	BRZ__88_PMTEN.USF	PMTEN	ANNUAL	BLDG2	1ST	0.12217	435545.69	4665614	1564.99	1 YRS	BRZ_88.SFC	12	13	4374
AERMOD	BRZ__88_PMTEN.USF	PMTEN	ANNUAL	BLDG3	1ST	0.4347	435545.69	4665614	1564.99	1 YRS	BRZ_88.SFC	12	13	4374
AERMOD	BRZ__88_PMTEN.USF	PMTEN	ANNUAL	BLDG4	1ST	0.87322	435540.69	4665599	1562.77	1 YRS	BRZ_88.SFC	12	13	4374
AERMOD	BRZ__88_PMTEN.USF	PMTEN	ANNUAL	TPFUG	1ST	0.31343	435540.69	4665624	1567.34	1 YRS	BRZ_88.SFC	12	13	4374
AERMOD	BRZ__89_PMTEN.USF	PMTEN	ANNUAL	ALL	1ST	3.3113	435545.69	4665614	1564.99	1 YRS	BRZ_89.SFC	12	13	4374

Model	File	Pol	Average	Group	Rank	Conc.	East(X)	North(Y)	Elev	Time	Met File	Sources	Groups	Rec.
AERMOD	BRZ__89_PMTEN.USF	PMTEN	ANNUAL	BGH1	1ST	0.26633	435524.91	4665684	1580.15	1 YRS	BRZ_89.SFC	12	13	4374
AERMOD	BRZ__89_PMTEN.USF	PMTEN	ANNUAL	BGH2	1ST	0.12601	435594.41	4665450.5	1547.56	1 YRS	BRZ_89.SFC	12	13	4374
AERMOD	BRZ__89_PMTEN.USF	PMTEN	ANNUAL	BGH3	1ST	0.25781	435545.69	4665614	1564.99	1 YRS	BRZ_89.SFC	12	13	4374
AERMOD	BRZ__89_PMTEN.USF	PMTEN	ANNUAL	BGH4	1ST	0.13816	435540.69	4665624	1567.34	1 YRS	BRZ_89.SFC	12	13	4374
AERMOD	BRZ__89_PMTEN.USF	PMTEN	ANNUAL	BGH5	1ST	0.20005	435538.81	4665637.5	1572.43	1 YRS	BRZ_89.SFC	12	13	4374
AERMOD	BRZ__89_PMTEN.USF	PMTEN	ANNUAL	BGH6	1ST	0.1558	435540.69	4665624	1567.34	1 YRS	BRZ_89.SFC	12	13	4374
AERMOD	BRZ__89_PMTEN.USF	PMTEN	ANNUAL	JCR1	1ST	0.06985	435515.69	4665649	1575.24	1 YRS	BRZ_89.SFC	12	13	4374
AERMOD	BRZ__89_PMTEN.USF	PMTEN	ANNUAL	BLDG1	1ST	0.38398	435538.81	4665637.5	1572.43	1 YRS	BRZ_89.SFC	12	13	4374
AERMOD	BRZ__89_PMTEN.USF	PMTEN	ANNUAL	BLDG2	1ST	0.13673	435545.69	4665614	1564.99	1 YRS	BRZ_89.SFC	12	13	4374
AERMOD	BRZ__89_PMTEN.USF	PMTEN	ANNUAL	BLDG3	1ST	0.4631	435545.69	4665614	1564.99	1 YRS	BRZ_89.SFC	12	13	4374
AERMOD	BRZ__89_PMTEN.USF	PMTEN	ANNUAL	BLDG4	1ST	0.90453	435540.69	4665599	1562.77	1 YRS	BRZ_89.SFC	12	13	4374
AERMOD	BRZ__89_PMTEN.USF	PMTEN	ANNUAL	TPFUG	1ST	0.38298	435540.69	4665624	1567.34	1 YRS	BRZ_89.SFC	12	13	4374
AERMOD	BRZ__90_PMTEN.USF	PMTEN	ANNUAL	ALL	1ST	2.61844	435545.69	4665614	1564.99	1 YRS	BRZ_90.SFC	12	13	4374
AERMOD	BRZ__90_PMTEN.USF	PMTEN	ANNUAL	BGH1	1ST	0.23065	435538.81	4665637.5	1572.43	1 YRS	BRZ_90.SFC	12	13	4374
AERMOD	BRZ__90_PMTEN.USF	PMTEN	ANNUAL	BGH2	1ST	0.0987	435545.69	4665614	1564.99	1 YRS	BRZ_90.SFC	12	13	4374
AERMOD	BRZ__90_PMTEN.USF	PMTEN	ANNUAL	BGH3	1ST	0.20809	435545.69	4665614	1564.99	1 YRS	BRZ_90.SFC	12	13	4374
AERMOD	BRZ__90_PMTEN.USF	PMTEN	ANNUAL	BGH4	1ST	0.1103	435545.69	4665614	1564.99	1 YRS	BRZ_90.SFC	12	13	4374
AERMOD	BRZ__90_PMTEN.USF	PMTEN	ANNUAL	BGH5	1ST	0.15957	435540.69	4665599	1562.77	1 YRS	BRZ_90.SFC	12	13	4374
AERMOD	BRZ__90_PMTEN.USF	PMTEN	ANNUAL	BGH6	1ST	0.13918	435540.69	4665624	1567.34	1 YRS	BRZ_90.SFC	12	13	4374
AERMOD	BRZ__90_PMTEN.USF	PMTEN	ANNUAL	JCR1	1ST	0.05784	435515.69	4665649	1575.24	1 YRS	BRZ_90.SFC	12	13	4374
AERMOD	BRZ__90_PMTEN.USF	PMTEN	ANNUAL	BLDG1	1ST	0.31568	435538.81	4665637.5	1572.43	1 YRS	BRZ_90.SFC	12	13	4374
AERMOD	BRZ__90_PMTEN.USF	PMTEN	ANNUAL	BLDG2	1ST	0.10906	435545.69	4665614	1564.99	1 YRS	BRZ_90.SFC	12	13	4374
AERMOD	BRZ__90_PMTEN.USF	PMTEN	ANNUAL	BLDG3	1ST	0.3582	435545.69	4665614	1564.99	1 YRS	BRZ_90.SFC	12	13	4374
AERMOD	BRZ__90_PMTEN.USF	PMTEN	ANNUAL	BLDG4	1ST	0.66587	435540.69	4665599	1562.77	1 YRS	BRZ_90.SFC	12	13	4374
AERMOD	BRZ__90_PMTEN.USF	PMTEN	ANNUAL	TPFUG	1ST	0.31261	435540.69	4665624	1567.34	1 YRS	BRZ_90.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	ALL	1ST	3.65993	435545.69	4665614	1564.99	1 YRS	BRZ_91.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	BGH1	1ST	0.31583	435538.81	4665637.5	1572.43	1 YRS	BRZ_91.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	BGH2	1ST	0.13563	435545.69	4665614	1564.99	1 YRS	BRZ_91.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	BGH3	1ST	0.27969	435540.69	4665624	1567.34	1 YRS	BRZ_91.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	BGH4	1ST	0.15816	435545.69	4665614	1564.99	1 YRS	BRZ_91.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	BGH5	1ST	0.2307	435540.69	4665599	1562.77	1 YRS	BRZ_91.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	BGH6	1ST	0.17949	435540.69	4665624	1567.34	1 YRS	BRZ_91.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	JCR1	1ST	0.08802	435515.69	4665649	1575.24	1 YRS	BRZ_91.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	BLDG1	1ST	0.44137	435538.81	4665637.5	1572.43	1 YRS	BRZ_91.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	BLDG2	1ST	0.16092	435545.69	4665614	1564.99	1 YRS	BRZ_91.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	BLDG3	1ST	0.53548	435545.69	4665614	1564.99	1 YRS	BRZ_91.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	BLDG4	1ST	1.00532	435540.69	4665599	1562.77	1 YRS	BRZ_91.SFC	12	13	4374
AERMOD	BRZ__91_PMTEN.USF	PMTEN	ANNUAL	TPFUG	1ST	0.42644	435540.69	4665624	1567.34	1 YRS	BRZ_91.SFC	12	13	4374
Model	File	Pol	Average	Group	Rank	Conc.	East(X)	North(Y)	Elev	Time	Met File	Sources	Groups	Rec.
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	ALL	1ST	4.43361	436049.59	4664995.5	1518.97	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	BGH1	1ST	0.27663	436450	4665500	1582.37	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	BGH2	1ST	0.13489	436450	4665500	1582.37	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	BGH3	1ST	0.44521	436550	4665450	1569.42	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	BGH4	1ST	0.15677	436450	4665450	1579.17	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	BGH5	1ST	0.2094	436500	4665500	1580.08	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	BGH6	1ST	0.17992	436387.59	4665222	1585.05	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	JCR1	1ST	0.09458	436600	4665500	1573.79	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	BLDG1	1ST	0.54527	436500	4665450	1570.94	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	BLDG2	1ST	0.18295	436049.59	4664995.5	1518.97	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	BLDG3	1ST	0.64178	436074.41	4664994.5	1520.04	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	BLDG4	1ST	1.28935	436049.59	4664995.5	1518.97	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	ANNUAL	TPFUG	1ST	0.58867	436049.59	4664995.5	1518.97	1 YRS	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	ALL	1ST	44.84685	435916.59	4665043.5	1518.86	3020824	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	ALL	2ND	43.39149	435916.59	4665043.5	1518.86	3011724	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BGH1	1ST	4.01878	436450	4665400	1584.51	3092924	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BGH1	2ND	2.71308	436550	4665550	1592.06	3100524	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BGH2	1ST	1.71444	436440.69	4665349	1585.08	3092924	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BGH2	2ND	1.28087	436550	4665500	1580.54	3120824	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BGH3	1ST	5.63923	435515.69	4665624	1569.81	3020524	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BGH3	2ND	5.08788	435916.59	4665043.5	1518.86	3011724	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BGH4	1ST	1.93286	436440.69	4665299	1580.53	3092924	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BGH4	2ND	1.89146	436550	4665500	1580.54	3100524	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BGH5	1ST	3.67216	436550	4665450	1569.42	3100524	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BGH5	2ND	2.66836	436500	4665500	1580.08	3092224	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BGH6	1ST	2.27823	436450	4665400	1584.51	3092924	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BGH6	2ND	1.84212	435531.81	4665660.5	1577.78	3012424	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	JCR1	1ST	1.49953	435490.69	4665674	1576.1	3020524	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	JCR1	2ND	1.04742	435515.69	4665649	1575.24	3020524	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BLDG1	1ST	5.95223	435916.59	4665043.5	1518.86	3020824	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BLDG1	2ND	5.65766	435916.59	4665043.5	1518.86	3011724	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BLDG2	1ST	2.17674	435465.69	4665649	1562.48	3010724	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BLDG2	2ND	1.94367	435916.59	4665043.5	1518.86	3011724	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BLDG3	1ST	7.48342	435545.69	4665614	1564.99	3020524	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BLDG3	2ND	6.71257	435937.41	4665032.5	1519.04	3011724	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BLDG4	1ST	14.84105	435916.59	4665043.5	1518.86	3020824	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	BLDG4	2ND	13.47654	435937.41	4665032.5	1519.04	3011724	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	TPFUG	1ST	6.36733	436074.41	4664994.5	1520.04	3020524	AgBRZ_03.SFC	12	13	4374
AERMOD	BRZ_03_PMTEN.USF	PMTEN	24-HR	TPFUG	2ND	6.18054	435895.69	4665055	1518.83	3011724	AgBRZ_03.SFC	12	13	4374
Model	File	Pol	Average	Group	Rank	Conc.	East(X)	North(Y)	Elev	Time	Met File	Sources	Groups	Rec.
AERMOD	BRZ_87_CO.USF	CO	1-HR	ALL	1ST	2.54258	437000	4665900	1567.18	87011704	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_CO.USF	CO	1-HR	ALL	2ND	2.54022	437000	4665900	1567.18	87011709	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_CO.USF	CO	1-HR	BGH2	1ST	2.54258	437000	4665900	1567.18	87011704	BRZ_87.SFC	1	2	4374

Model	File	Pol	Average	Group	Rank	Conc.	East(X)	North(Y)	Elev	Time	Met File	Sources	Groups	Rec.
AERMOD	BRZ_87_CO.USF	CO	1-HR	BGH2	2ND	2.54022	437000	4665900	1567.18	87011709	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_CO.USF	CO	8-HR	ALL	1ST	0.56007	437000	4665950	1566.67	87010924	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_CO.USF	CO	8-HR	ALL	2ND	0.40389	437000	4665900	1567.18	87090708	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_CO.USF	CO	8-HR	BGH2	1ST	0.56007	437000	4665950	1566.67	87010924	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_CO.USF	CO	8-HR	BGH2	2ND	0.40389	437000	4665900	1567.18	87090708	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_88_CO.USF	CO	1-HR	ALL	1ST	2.58386	437000	4666050	1568.6	88022502	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_CO.USF	CO	1-HR	ALL	2ND	2.49649	436950	4666000	1572.36	88120305	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_CO.USF	CO	1-HR	BGH2	1ST	2.58386	437000	4666050	1568.6	88022502	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_CO.USF	CO	1-HR	BGH2	2ND	2.49649	436950	4666000	1572.36	88120305	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_CO.USF	CO	8-HR	ALL	1ST	0.71116	436950	4666000	1572.36	88120308	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_CO.USF	CO	8-HR	ALL	2ND	0.36622	435608.31	4665403.5	1541.22	88010324	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_CO.USF	CO	8-HR	BGH2	1ST	0.71116	436950	4666000	1572.36	88120308	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_CO.USF	CO	8-HR	BGH2	2ND	0.36622	435608.31	4665403.5	1541.22	88010324	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_89_CO.USF	CO	1-HR	ALL	1ST	2.51353	437000	4666050	1568.6	89122405	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_CO.USF	CO	1-HR	ALL	2ND	2.31665	437000	4665900	1567.18	89020722	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_CO.USF	CO	1-HR	BGH2	1ST	2.51353	437000	4666050	1568.6	89122405	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_CO.USF	CO	1-HR	BGH2	2ND	2.31665	437000	4665900	1567.18	89020722	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_CO.USF	CO	8-HR	ALL	1ST	0.72116	435590.69	4665449	1544.77	89113008	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_CO.USF	CO	8-HR	ALL	2ND	0.55397	435590.69	4665424	1542.74	89120324	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_CO.USF	CO	8-HR	BGH2	1ST	0.72116	435590.69	4665449	1544.77	89113008	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_CO.USF	CO	8-HR	BGH2	2ND	0.55397	435590.69	4665424	1542.74	89120324	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_90_CO.USF	CO	1-HR	ALL	1ST	2.57557	437000	4665900	1567.18	90120723	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_CO.USF	CO	1-HR	ALL	2ND	2.38056	436950	4666000	1572.36	90100622	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_CO.USF	CO	1-HR	BGH2	1ST	2.57557	437000	4665900	1567.18	90120723	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_CO.USF	CO	1-HR	BGH2	2ND	2.38056	436950	4666000	1572.36	90100622	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_CO.USF	CO	8-HR	ALL	1ST	0.46937	435559.59	4665567	1554.85	90022308	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_CO.USF	CO	8-HR	ALL	2ND	0.35277	435566.59	4665544	1552.66	90022308	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_CO.USF	CO	8-HR	BGH2	1ST	0.46937	435559.59	4665567	1554.85	90022308	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_CO.USF	CO	8-HR	BGH2	2ND	0.35277	435566.59	4665544	1552.66	90022308	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_91_CO.USF	CO	1-HR	ALL	1ST	2.46649	436900	4665750	1565.96	91012319	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_CO.USF	CO	1-HR	ALL	2ND	2.3514	436900	4665750	1565.96	91021001	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_CO.USF	CO	1-HR	BGH2	1ST	2.46649	436900	4665750	1565.96	91012319	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_CO.USF	CO	1-HR	BGH2	2ND	2.3514	436900	4665750	1565.96	91021001	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_CO.USF	CO	8-HR	ALL	1ST	0.49855	435545.69	4665614	1564.99	91013008	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_CO.USF	CO	8-HR	ALL	2ND	0.48007	435545.69	4665614	1564.99	91010108	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_CO.USF	CO	8-HR	BGH2	1ST	0.49855	435545.69	4665614	1564.99	91013008	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_CO.USF	CO	8-HR	BGH2	2ND	0.48007	435545.69	4665614	1564.99	91010108	BRZ_91.SFC	1	2	4374
Model	File	Pol	Average	Group	Rank	Conc.	East(X)	North(Y)	Elev	Time	Met File	Sources	Groups	Rec.
AERMOD	BRZ_03_CO.USF	CO	1-HR	ALL	1ST	1.77134	436600	4665550	1589.16	3100605	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_CO.USF	CO	1-HR	ALL	2ND	1.46771	436600	4665550	1589.16	3090107	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_CO.USF	CO	1-HR	BGH2	1ST	1.77134	436600	4665550	1589.16	3100605	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_CO.USF	CO	1-HR	BGH2	2ND	1.46771	436600	4665550	1589.16	3090107	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_CO.USF	CO	8-HR	ALL	1ST	0.42086	436440.69	4665349	1585.08	3092908	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_CO.USF	CO	8-HR	ALL	2ND	0.28586	436550	4665500	1580.54	3092208	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_CO.USF	CO	8-HR	BGH2	1ST	0.42086	436440.69	4665349	1585.08	3092908	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_CO.USF	CO	8-HR	BGH2	2ND	0.28586	436550	4665500	1580.54	3092208	AgBRZ_03.SFC	1	2	4374
Model	File	Pol	Average	Group	Rank	Conc.	East(X)	North(Y)	Elev	Time	Met File	Sources	Groups	Rec.
AERMOD	BRZ_87_SO2.USF	SO2	ANNUAL	ALL	1ST	0.00009	435545.69	4665614	1564.99	1 YRS	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_SO2.USF	SO2	ANNUAL	BGH2	1ST	0.00009	435545.69	4665614	1564.99	1 YRS	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_SO2.USF	SO2	3-HR	ALL	1ST	0.00894	437000	4665900	1567.18	87011706	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_SO2.USF	SO2	3-HR	ALL	2ND	0.00893	437000	4665900	1567.18	87011709	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_SO2.USF	SO2	3-HR	BGH2	1ST	0.00894	437000	4665900	1567.18	87011706	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_SO2.USF	SO2	3-HR	BGH2	2ND	0.00893	437000	4665900	1567.18	87011709	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_SO2.USF	SO2	24-HR	ALL	1ST	0.00298	437000	4665900	1567.18	87011724	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_SO2.USF	SO2	24-HR	ALL	2ND	0.00169	435601.31	4665427	1545.29	87011024	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_SO2.USF	SO2	24-HR	BGH2	1ST	0.00298	437000	4665900	1567.18	87011724	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_SO2.USF	SO2	24-HR	BGH2	2ND	0.00169	435601.31	4665427	1545.29	87011024	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_88_SO2.USF	SO2	ANNUAL	ALL	1ST	0.00009	435531.81	4665660.5	1577.78	1 YRS	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_SO2.USF	SO2	ANNUAL	BGH2	1ST	0.00009	435531.81	4665660.5	1577.78	1 YRS	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_SO2.USF	SO2	3-HR	ALL	1ST	0.0175	436950	4666000	1572.36	88120306	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_SO2.USF	SO2	3-HR	ALL	2ND	0.00888	436950	4666000	1572.36	88120324	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_SO2.USF	SO2	3-HR	BGH2	1ST	0.0175	436950	4666000	1572.36	88120306	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_SO2.USF	SO2	3-HR	BGH2	2ND	0.00888	436950	4666000	1572.36	88120324	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_SO2.USF	SO2	24-HR	ALL	1ST	0.0036	436950	4666000	1572.36	88120324	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_SO2.USF	SO2	24-HR	ALL	2ND	0.00163	435622.19	4665357	1532.75	88022324	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_SO2.USF	SO2	24-HR	BGH2	1ST	0.0036	436950	4666000	1572.36	88120324	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_SO2.USF	SO2	24-HR	BGH2	2ND	0.00163	435622.19	4665357	1532.75	88022324	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_89_SO2.USF	SO2	ANNUAL	ALL	1ST	0.00011	435594.41	4665450.5	1547.56	1 YRS	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_SO2.USF	SO2	ANNUAL	BGH2	1ST	0.00011	435594.41	4665450.5	1547.56	1 YRS	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_SO2.USF	SO2	3-HR	ALL	1ST	0.01263	437000	4665800	1569.11	89011803	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_SO2.USF	SO2	3-HR	ALL	2ND	0.00891	435540.69	4665599	1562.77	89122518	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_SO2.USF	SO2	3-HR	BGH2	1ST	0.01263	437000	4665800	1569.11	89011803	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_SO2.USF	SO2	3-HR	BGH2	2ND	0.00891	435540.69	4665599	1562.77	89122518	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_SO2.USF	SO2	24-HR	ALL	1ST	0.00247	435590.69	4665449	1544.77	89113024	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_SO2.USF	SO2	24-HR	ALL	2ND	0.0022	435656.59	4665266.5	1522.8	89122324	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_SO2.USF	SO2	24-HR	BGH2	1ST	0.00247	435590.69	4665449	1544.77	89113024	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_SO2.USF	SO2	24-HR	BGH2	2ND	0.0022	435656.59	4665266.5	1522.8	89122324	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_90_SO2.USF	SO2	ANNUAL	ALL	1ST	0.00009	435545.69	4665614	1564.99	1 YRS	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_SO2.USF	SO2	ANNUAL	BGH2	1ST	0.00009	435545.69	4665614	1564.99	1 YRS	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_SO2.USF	SO2	3-HR	ALL	1ST	0.00905	437000	4665900	1567.18	90120724	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_SO2.USF	SO2	3-HR	ALL	2ND	0.00837	436950	4666000	1572.36	90100624	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_SO2.USF	SO2	3-HR	BGH2	1ST	0.00905	437000	4665900	1567.18	90120724	BRZ_90.SFC	1	2	4374

Model	File	Pol	Average	Group	Rank	Conc.	East(X)	North(Y)	Elev	Time	Met File	Sources	Groups	Rec.
AERMOD	BRZ_90_SO2.USF	SO2	3-HR	BGH2	2ND	0.00837	436950	4666000	1572.36	90100624	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_SO2.USF	SO2	24-HR	ALL	1ST	0.00221	435565.69	4665499	1546.19	90122424	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_SO2.USF	SO2	24-HR	ALL	2ND	0.00153	435559.59	4665567	1554.85	90123124	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_SO2.USF	SO2	24-HR	BGH2	1ST	0.00221	435565.69	4665499	1546.19	90122424	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_SO2.USF	SO2	24-HR	BGH2	2ND	0.00153	435559.59	4665567	1554.85	90123124	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_91_SO2.USF	SO2	ANNUAL	ALL	1ST	0.00012	435545.69	4665614	1564.99	1 YRS	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_SO2.USF	SO2	ANNUAL	BGH2	1ST	0.00012	435545.69	4665614	1564.99	1 YRS	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_SO2.USF	SO2	3-HR	ALL	1ST	0.01078	436850	4665750	1573.68	91100924	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_SO2.USF	SO2	3-HR	ALL	2ND	0.00867	436900	4665750	1565.96	91012321	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_SO2.USF	SO2	3-HR	BGH2	1ST	0.01078	436850	4665750	1573.68	91100924	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_SO2.USF	SO2	3-HR	BGH2	2ND	0.00867	436900	4665750	1565.96	91012321	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_SO2.USF	SO2	24-HR	ALL	1ST	0.00277	435590.69	4665449	1544.77	91012524	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_SO2.USF	SO2	24-HR	ALL	2ND	0.00204	435540.69	4665624	1567.34	91010124	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_SO2.USF	SO2	24-HR	BGH2	1ST	0.00277	435590.69	4665449	1544.77	91012524	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_SO2.USF	SO2	24-HR	BGH2	2ND	0.00204	435540.69	4665624	1567.34	91010124	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_03_SO2.USF	SO2	ANNUAL	ALL	1ST	0.00012	436450	4665500	1582.37	1 YRS	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_SO2.USF	SO2	ANNUAL	BGH2	1ST	0.00012	436450	4665500	1582.37	1 YRS	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_SO2.USF	SO2	3-HR	ALL	1ST	0.00912	436550	4665500	1580.54	3100506	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_SO2.USF	SO2	3-HR	ALL	2ND	0.00772	436550	4665500	1580.54	3092203	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_SO2.USF	SO2	3-HR	BGH2	1ST	0.00912	436550	4665500	1580.54	3100506	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_SO2.USF	SO2	3-HR	BGH2	2ND	0.00772	436550	4665500	1580.54	3092203	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_SO2.USF	SO2	24-HR	ALL	1ST	0.0015	436440.69	4665349	1585.08	3092924	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_SO2.USF	SO2	24-HR	ALL	2ND	0.00112	436550	4665500	1580.54	3120824	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_SO2.USF	SO2	24-HR	BGH2	1ST	0.0015	436440.69	4665349	1585.08	3092924	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_SO2.USF	SO2	24-HR	BGH2	2ND	0.00112	436550	4665500	1580.54	3120824	AgBRZ_03.SFC	1	2	4374
Model	File	Pol	Average	Group	Rank	Conc.	East(X)	North(Y)	Elev	Time	Met File	Sources	Groups	Rec.
AERMOD	BRZ_87_NO2.USF	NO2	ANNUAL	ALL	1ST	0.06579	435545.69	4665614	1564.99	1 YRS	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_NO2.USF	NO2	ANNUAL	BGH2	1ST	0.06579	435545.69	4665614	1564.99	1 YRS	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_88_NO2.USF	NO2	ANNUAL	ALL	1ST	0.06083	435531.81	4665660.5	1577.78	1 YRS	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_NO2.USF	NO2	ANNUAL	BGH2	1ST	0.06083	435531.81	4665660.5	1577.78	1 YRS	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_89_NO2.USF	NO2	ANNUAL	ALL	1ST	0.07708	435594.41	4665450.5	1547.56	1 YRS	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_NO2.USF	NO2	ANNUAL	BGH2	1ST	0.07708	435594.41	4665450.5	1547.56	1 YRS	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_90_NO2.USF	NO2	ANNUAL	ALL	1ST	0.06037	435545.69	4665614	1564.99	1 YRS	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_NO2.USF	NO2	ANNUAL	BGH2	1ST	0.06037	435545.69	4665614	1564.99	1 YRS	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_91_NO2.USF	NO2	ANNUAL	ALL	1ST	0.08297	435545.69	4665614	1564.99	1 YRS	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_NO2.USF	NO2	ANNUAL	BGH2	1ST	0.08297	435545.69	4665614	1564.99	1 YRS	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_03_NO2.USF	NO2	ANNUAL	ALL	1ST	0.08251	436450	4665500	1582.37	1 YRS	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_NO2.USF	NO2	ANNUAL	BGH2	1ST	0.08251	436450	4665500	1582.37	1 YRS	AgBRZ_03.SFC	1	2	4374
Model	File	Pol	Average	Group	Rank	Conc.	East(X)	North(Y)	Elev	Time	Met File	Sources	Groups	Rec.
AERMOD	BRZ_87_PB.USF	PB	1-HR	ALL	1ST	0.00006	437000	4665900	1567.18	87011704	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_87_PB.USF	PB	1-HR	BGH2	1ST	0.00006	437000	4665900	1567.18	87011704	BRZ_87.SFC	1	2	4374
AERMOD	BRZ_88_PB.USF	PB	1-HR	ALL	1ST	0.00006	437000	4666050	1568.6	88022502	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_88_PB.USF	PB	1-HR	BGH2	1ST	0.00006	437000	4666050	1568.6	88022502	BRZ_88.SFC	1	2	4374
AERMOD	BRZ_89_PB.USF	PB	1-HR	ALL	1ST	0.00006	437000	4666050	1568.6	89122405	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_89_PB.USF	PB	1-HR	BGH2	1ST	0.00006	437000	4666050	1568.6	89122405	BRZ_89.SFC	1	2	4374
AERMOD	BRZ_90_PB.USF	PB	1-HR	ALL	1ST	0.00006	437000	4665900	1567.18	90120723	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_90_PB.USF	PB	1-HR	BGH2	1ST	0.00006	437000	4665900	1567.18	90120723	BRZ_90.SFC	1	2	4374
AERMOD	BRZ_91_PB.USF	PB	1-HR	ALL	1ST	0.00006	436900	4665750	1565.96	91012319	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_91_PB.USF	PB	1-HR	BGH2	1ST	0.00006	436900	4665750	1565.96	91012319	BRZ_91.SFC	1	2	4374
AERMOD	BRZ_03_PB.USF	PB	1-HR	ALL	1ST	0.00004	436600	4665550	1589.16	3100605	AgBRZ_03.SFC	1	2	4374
AERMOD	BRZ_03_PB.USF	PB	1-HR	BGH2	1ST	0.00004	436600	4665550	1589.16	3100605	AgBRZ_03.SFC	1	2	4374

*** AERMOD - VERSION 07026 ***
*** U S Antimony Bear River Zeolite ***
*** Model Executed on 02/13/07 at 11:00:03 ***
Input File - C:\Clients\U.S. Antimony\MDL 07\BRZ_87_91_PMTEN.DTA

Output File - C:\Clients\U.S. Antimony\MDL 07\BRZ_87_91_PMTEN.LST

Met File - C:\Clients\Met Data\BRZeol\BRZ_87_91.SFC

Number of sources - 12
Number of source groups - 13
Number of receptors - 4374

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR	EMIS RATE SCALAR VARY BY
BGH1	0	0.10092E+00	436033.9	4666000.5	1570.2	2.21	294.26	7.71	0.69	YES	NO	NO	
BGH2	0	0.47375E-01	436039.0	4665972.0	1566.7	2.44	344.26	10.77	0.40	YES	NO	NO	
BGH3	0	0.64385E-01	436039.0	4665956.0	1564.1	6.71	294.26	0.00	0.36	YES	NO	NO	
BGH4	0	0.40067E-01	436052.4	4665960.0	1567.5	2.74	294.26	9.11	0.38	YES	NO	NO	
BGH5	0	0.57203E-01	436035.4	4665932.5	1562.9	1.89	294.26	14.97	0.37	YES	NO	NO	
BGH6	0	0.66527E-01	436012.4	4665972.5	1567.2	6.10	294.26	17.38	0.37	YES	NO	NO	

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
JCR1	0	0.10080E-01	436037.5	4666025.5	1574.3	1.83	0.25	1.70	NO	
BLDG1	0	0.73583E-01	436038.9	4666004.0	1570.7	4.27	1.42	3.97	NO	
BLDG2	0	0.21042E-01	436026.6	4665945.5	1563.2	3.05	2.98	2.84	NO	
BLDG3	0	0.74465E-01	436047.7	4665950.0	1564.1	3.05	1.56	2.84	NO	
BLDG4	0	0.14301E+00	436040.9	4665922.0	1561.6	3.05	3.19	2.84	NO	
TPFUG	0	0.91626E-01	436028.6	4665972.0	1566.3	6.10	12.76	5.67	NO	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	BGH1 , BGH2 , BGH3 , BGH4 , BGH5 , BGH6 , JCR1 , BLDG1 , BLDG2 , BLDG3 , BLDG4 , TPFUG ,
BGH1	BGH1 ,
BGH2	BGH2 ,
BGH3	BGH3 ,
BGH4	BGH4 ,
BGH5	BGH5 ,
BGH6	BGH6 ,
JCR1	JCR1 ,
BLDG1	BLDG1 ,
BLDG2	BLDG2 ,
BLDG3	BLDG3 ,
BLDG4	BLDG4 ,
TPFUG	TPFUG ,

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PMTEN IN MICROGRAMS/M**3 **

GROUP ID			AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK OF TYPE	GRID-ID
ALL	HIGH	1ST HIGH VALUE IS	65.28523c	ON 89120224: AT (	435490.69, 4665624.00, 1565.36, 1892.50,	0.00)	DC
	HIGH	6TH HIGH VALUE IS	49.53464c	ON 89020724: AT (	435545.69, 4665614.00, 1564.99, 1892.50,	0.00)	DC
BGH1	HIGH	1ST HIGH VALUE IS	6.52300c	ON 91122224: AT (	435490.69, 4665749.00, 1584.21, 1892.50,	0.00)	DC
	HIGH	6TH HIGH VALUE IS	4.76233c	ON 88012524: AT (	435490.69, 4665724.00, 1583.01, 1892.50,	0.00)	DC
BGH2	HIGH	1ST HIGH VALUE IS	4.11208c	ON 88120324: AT (	436950.00, 4666000.00, 1572.36, 1892.50,	0.00)	DC
	HIGH	6TH HIGH VALUE IS	1.94603c	ON 89112824: AT (	435545.69, 4665614.00, 1564.99, 1892.50,	0.00)	DC
BGH3	HIGH	1ST HIGH VALUE IS	6.99174c	ON 89122524: AT (	436850.00, 4665700.00, 1566.99, 1892.50,	0.00)	DC
	HIGH	6TH HIGH VALUE IS	4.26035c	ON 89020724: AT (	435515.69, 4665624.00, 1569.81, 1892.50,	0.00)	DC
BGH4	HIGH	1ST HIGH VALUE IS	3.83142c	ON 88121224: AT (	435540.69, 4665624.00, 1567.34, 1892.50,	0.00)	DC
	HIGH	6TH HIGH VALUE IS	2.51350c	ON 88120324: AT (	435538.81, 4665637.50, 1572.43, 1892.50,	0.00)	DC
BGH5	HIGH	1ST HIGH VALUE IS	5.14245c	ON 89120224: AT (	435538.81, 4665637.50, 1572.43, 1892.50,	0.00)	DC
	HIGH	6TH HIGH VALUE IS	3.78296c	ON 88121624: AT (	435540.69, 4665624.00, 1567.34, 1892.50,	0.00)	DC
BGH6	HIGH	1ST HIGH VALUE IS	3.99912c	ON 91012524: AT (	435565.69, 4665474.00, 1543.63, 1892.50,	0.00)	DC
	HIGH	6TH HIGH VALUE IS	2.53410c	ON 87010924: AT (	435540.69, 4665624.00, 1567.34, 1892.50,	0.00)	DC
JCR1	HIGH	1ST HIGH VALUE IS	2.40456c	ON 91012524: AT (	435580.50, 4665497.00, 1550.45, 1892.50,	0.00)	DC
	HIGH	6TH HIGH VALUE IS	1.70097c	ON 91122224: AT (	435465.69, 4665724.00, 1572.80, 1892.50,	0.00)	DC
BLDG1	HIGH	1ST HIGH VALUE IS	9.84292c	ON 91122224: AT (	435465.69, 4665724.00, 1572.80, 1892.50,	0.00)	DC
	HIGH	6TH HIGH VALUE IS	6.92364c	ON 91010124: AT (	435538.81, 4665637.50, 1572.43, 1892.50,	0.00)	DC
BLDG2	HIGH	1ST HIGH VALUE IS	4.08674c	ON 89120224: AT (	435490.69, 4665624.00, 1565.36, 1892.50,	0.00)	DC
	HIGH	6TH HIGH VALUE IS	2.75516	ON 88122724: AT (	435540.69, 4665599.00, 1562.77, 1892.50,	0.00)	DC
BLDG3	HIGH	1ST HIGH VALUE IS	14.66974c	ON 89120224: AT (	435490.69, 4665624.00, 1565.36, 1892.50,	0.00)	DC
	HIGH	6TH HIGH VALUE IS	9.26787	ON 88122724: AT (	435545.69, 4665614.00, 1564.99, 1892.50,	0.00)	DC
BLDG4	HIGH	1ST HIGH VALUE IS	27.29801c	ON 89120224: AT (	435515.69, 4665599.00, 1562.60, 1892.50,	0.00)	DC
	HIGH	6TH HIGH VALUE IS	17.49484c	ON 88121624: AT (	435540.69, 4665599.00, 1562.77, 1892.50,	0.00)	DC
TPFUG	HIGH	1ST HIGH VALUE IS	7.46674c	ON 91122224: AT (	435465.69, 4665699.00, 1570.08, 1892.50,	0.00)	DC
	HIGH	6TH HIGH VALUE IS	6.00601c	ON 91013024: AT (	435465.69, 4665674.00, 1566.74, 1892.50,	0.00)	DC

APPENDIX D

Air Dispersion Modeling Electronic Files

Bear River Zeolite Company, Inc.

APPENDIX E

Certification

Bear River Zeolite Company, Inc.

CERTIFICATION

THE FOLLOWING STATEMENT ATTESTS TO THE CORRECTNESS OF THE INFORMATION IN THIS DOCUMENT WHEN SIGNED BY A RESPONSIBLE OFFICIAL OF THE FIRM.

I certify that based on the information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate and complete.

(Signature of Responsible Official)

5 Jan 2006
Date

John Lawrence
President
Bear River Zeolite